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February 1989

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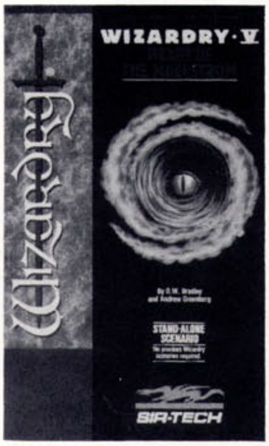
COMPUTER GAMING WORLD

Covering the World of Computer Games For Eight Years

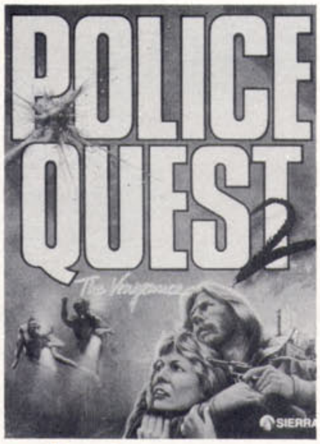
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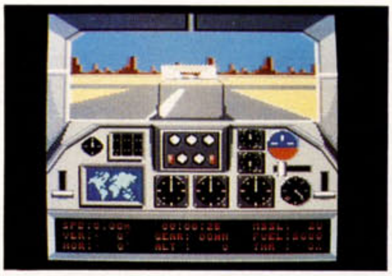
Absolute Entertainment
251 Rock Road
Glen Rock, NJ 07452

F-18 HORNET: Players engage in ten combat missions around the globe in this naval air combat game. This is the C-64 version of an Atari 7800 game. Each player is a graduate of the "Top Gun" Flight School, so takeoffs and landings on aircraft carriers are a piece of cake. Right? Smooth scrolling graphics and 3-D solid-fill terrain all enhance the feeling of actual flight. Missions cover air combat, supply drops, and bombing and strafing runs. I could tell you more, but then I'd have to kill you. C-64 pictured ($34.95). Circle Reader Service #1.

Activision
3885 Bohannon Dr.
Menlo Park, CA 94025

CHOP 'N DROP: The last man standing takes all in this full contact karate game. One or two novice Chuck Norrises compete with the computer in a joystick driven free for all. Players can use up to 16 different karate moves while trying to land the most blows in timed rounds. C-64 (29.95). Circle Reader Service #2.

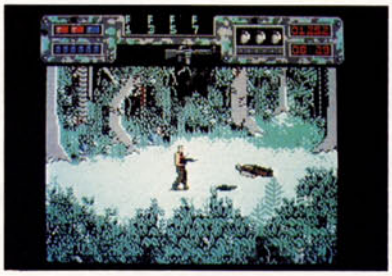
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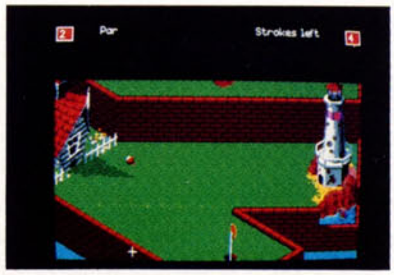
Predator



Downhill Challenge



Sword of Sodan



Zany Golf

PREDATOR: Players fight their way through enemy soldiers, the jungle and an alien manhunter in this computer version of "Arnold vs. the Alien." Rescuing US diplomatic hostages becomes secondary to staying alive in this fast moving action game. Machine guns, hand grenades and flamethrowers prove to be man's best friend in this one. C-64 ($14.95). Circle Reader Service #3.

Antic Software
544 Second Street
San Francisco, CA 94107

CRASH GARRETT: Picture *Rocket Ranger* in an Infocomic style game, without the story branching, and you've got Crash Garrett. The level of graphics and sound you've come to expect from the Amiga frame this imported French adventure game. Crash must prevent sinister Nazis from kidnapping long stemmed, American beauties and using them for breeding stock to create an Aryan race of superhumans. Well, you get the picture. Amiga pictured on p. 59, Atari ST ($39.95). Circle Reader Service #4.

Arcadia
711 West 17th St. Unit G9
Costa Mesa, CA

DOUBLE DRAGON: The coin-op Kung Fu game comes to the home computer as one or two players control twin brothers in a battle to clean up the streets and recover their girlfriend from the Shadow Boss. Players choose from a variety of Kung Fu moves and street weapons in this joystick driven action game. To fight is to win, eh Grasshopper? C-64 pictured on p. 59, IBM ($34.99). Circle Reader Service #5.

(Continued on page 59)

Best Action / Strategy Game!! – Software Publishers Association

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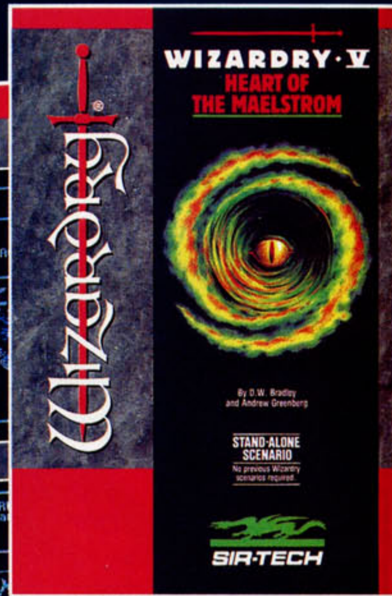
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67CGD (Feb)

WIZARDRY·V

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More than twice the size of previous scenarios, with larger monster pictures, magical pools, buried treasure, locked doors and much, much more.

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Thief and Ninja characters that can hide, then ambush unsuspecting monsters. Spellcasters can conjure monsters to fight for your party.

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Screens from Apple II version of the game. Screens for other systems may vary.

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Sense of Omission

I wish you would give the listings of *all* computer systems for a game. For example, *Manhunter* is not just for the IBM, but also for Apple IIGS and C-64/128. I have the feeling I've missed out on more games through your magazine, simply because you didn't list all computer types available.

Julie Freeman
Cupertino, CA

I counted three games in "Taking A Peek" that are in IIGS format, but were not listed. Is your magazine entitled *MS-DOS World* or *Computer Gaming World*?

Bob Campbell
Downers Grove, IL

Ed: "Taking A Peek" is based on actual product received. Many times, we receive one version of a game prior to press time and publish the "peek" from a look at that version. Then, it may take anywhere from a week to several months before we get the other versions of that game. For this reason, we started a "Conversions Received" column to keep readers updated on products for their favorite computer systems. Remember, CGW works on a minimum of two months lead time. A program that arrives in December usually will not show up in "Taking A Peek" until February. We are constantly working on three issues at once and it is possible that a version can arrive after we have printed the "Game Ratings" or "Taking A Peek." It is not our intent to slight any computer system. However, we do not want to mislead our readers by printing that conversions are on the shelf before they actually are, either.

Final Exposition

As the author of *First Expedition*, I am writing in response to the review of same appearing in your November issue. I can not read that review without a strong sense of disappointment and a feeling that the reviewer was surely mismatched to review this adventure. His "Bad Tidings" section begins with "Part simulator and part quest game, First Expedition is *not* a role-playing game" as if he were striking at a claim that it was the ultimate in role-playing games. Then, he proceeds to demonstrate that it fails as a role-playing game and, in fact, is trivial. It reminds me of a recent encounter on television that was highly publicized. I can see the reviewer stating, with no small degree of contempt, "First Expedition, you're no Role-Playing Game." I guess my first and most immediate point is that it was never intended to be one in the first place. So, I am confused at the vigor with which he attacks some imaginary premise that it is one. He feels that it is trivial, yet has a too difficult and cumbersome means of navigating about the world. I would like the opportunity to address this review, as I feel it was unjust in its treatment of First Expedition. The biggest sin I feel committed in this review was one of omission. I hope to throw some light on what First Expedition *is* for those who might find it enjoyable.

First Expedition is a first-person color graphics adventure that places you on a fictional ocean world and gives you the task of finding three missing Sun Spheres before a certain number of days have elapsed. A full day is four minutes of daylight followed by a four minute night. At night, there are stars. These are used for navigation and can be used in two ways: a compass is provided to permit triangulation for those who wish to become involved with manually charting their position and, there is an option that can be set at any time which activates the Autoplot feature for those who do not want to deal with the task of plotting their position. With Autoplot, you merely have to identify two stars currently in the sky from the star chart and you are given your coordinates on the planet.

And so, you rove from island to island. During this roving, you meet ships coming over the horizon who may be friendly or hostile (you are advised how to tell the difference), sea beasts that can be shot for food, storms, fog that hides the islands on the horizon during day and hide the stars at night, and of course, islands which rise out of the sea as you approach. As you search for uncharted islands, you can use survey rockets to scan the area about you. There is always an island within a full day's cruise from another (unless you head out across the Great Sea, an area of open ocean lacking islands which is marked on the island chart). That means you may have as much as eight minutes during which you may run into sea beasts, other ships, storms, plot your position during the evening, and be beset with fog. Not all these events happen every day and so, there will be times where your main concern is staying on course by use of the rudder, working against the currents which vary in strength and direction in different parts of the world. Granted, this can result in several minutes of relatively idle time in your quest for the next island, but just when you forget to look behind you, you may get boarded and lose food and fuel.

As the author, I agree that First Expedition is not a difficult puzzle type of game, nor is it a complex role-playing enterprise. If it was, I would have failed in my efforts. It is a user-friendly ongoing adventure presenting a world that many have had fun exploring. Users I have talked with have called it "captivating" and "quite addictive." Of course, these may be the very folk who find some of the more complex and involved software entertainment packages too difficult to figure out or, like me, merely do not want to spend that much effort in figuring out how to solve the problem presented. First Expedition is not for hard core problem solvers. I wrote it because there seems to be a gap in entertainment software for the many who want something they can return to and continue "playing" without the burden of long learning curves and the complexity of many of the quest and role packages.

Ironically, First Expedition was originally conceived to be a navigation-oriented sea-going adventure. The navigational aspect of First Expedition was what first caught the interest of **Interstel**. It, in my opinion, is one of the most interesting points of the adventure despite the displeasure the reviewer had with that aspect of the package. The Autoplot feature was added toward the end of development of the adventure for those who did not want to go through the exercise of plotting their position. As for it being easy to solve, the reviewer is the first I have heard of who never had to start over. I congratulate him on that accomplishment. The gentleman did advise me on the phone that he played it through to its solution and that "there's a lot to it." I was sorry he didn't find the room to include those feelings in his review.

Steve Englestad
San Diego, CA



Steve Englestad

Ed: The advertisement for "First Expedition" which ran in the October issue of CGW mentioned, "renegade pirates, storms, sea beasts, hostile natives, armed robots, and a deadly comet . . ." as well as set the stage by proclaiming, " . . . you are plunged into a dangerous unexplored world, guided only by pieces of old maps, a compass, a star chart, and the advice of your first mate . . . ." We also thought the idea of a "real-time, first-person graphics adventure" implied a continuity with the role-playing genre. Part of the function of a review is to help our readers decide for themselves whether a product is what they are looking for or not. We hope the publication of this letter will further establish what kind of product First Expedition is.

(Continued on page 44)

Soaring Into 1989

In order to publish this fast-breaking report on the Winter Consumer Electronics Show, our review/strategy for Neuromancer has been postponed until CGW #57.







CES featured robots, SamuraiCams, fabulous babes and a lot of T.V. repairmen from Iowa. Note Ozzie Cadenza in foreground of top picture.

Our fabled editorial jaunts to cover the fast-breaking world of computer entertainment software, often start with disconcerting experiences with the airlines. Our trip to the **Winter Consumer Electronics Show** in Las Vegas was no exception. Our flight was delayed for two hours because the plane originally assigned had mechanical problems. We boarded the new plane in glum spirits and the pilot almost immediately broadcast what we expected to be the obligatory welcome speech. Instead, we heard,

Good evening, ladies and gentlemen, welcome to Flight 2222. They tell me we're running a little late. I wouldn't know. I had a nighttime assignation with a lady in San Jose until getting the call. But, don't you worry about her, she'll probably just make the loop around the airport a few times until she runs into another pilot . . . or an ex-marine. Ah, well, probably saved me from a fate worse than death. Anyway, since I saved all that money I was gonna' spend on her, you folks can have anything you want to drink on me. Don't forget to thank these ladies doing the serving. I'd like to thank each and every one of them personally, but I'm told they're being sent somewhere else after this flight. Oh, well!

We all applauded as the clever pilot turned a potentially negative moment into a crowd pleaser. That's what the entertainment software industry hopes to do in 1989. In spite of investors' lack of confidence in the economy in general (because of the uncertain dollar and the federal deficit), Frank Myers (vice-president of the sponsoring trade association) opened the show with the counter-assertion that consumer confidence is high and "Intention-to-buy statistics are encouraging."

A Call to Action

Since the cartridge game market dominated by **Nintendo** (though Jeff Weitzer, **Sega** Product Manager, projects an 11% penetration of the video game market by their company at the end of the year) has flexed so much financial muscle, the disk-based software industry has responded with a fervor. By far the majority of software titles exhibited at the show were action titles. Since the games-systems market is estimated at greater than two billion dollars per year and disk-based entertainment software at less than 300 million dollars per year, this is not surprising.

Fortunately, many of these titles, for both game system conversions and coin-op translations, are pushing their respective hardware platforms to new heights. In coin-op conversions, in particular, there was an emphasis on side-by-side comparisons. At **Data East**, the conversions of *Bad Dudes* (a street fighting game where players fight killer dogs and thugs to "rescue the president") and *Robocop* (the arcade game based on the movie) were being demonstrated on personal computers stationed adjacent to their "older cousins." **Arcadia** and **Melbourne House** had coin-ops in their booth to demonstrate how well their arcade games stack up against their "big box" games. The company announced *Magic Johnson's Fast Break Basketball* (an action game for 1-2 players which compares in style with their *John Elway's Quarterback* football game) for Amiga/IBM (due around April 1) and *Artura* (a "Barbarian"-style game where the hero throws axes and casts spells to rescue the maiden) for Amiga, ST, and C-64 to be released this month. **Taito** is now using the actual graphics files from their coin-op hits on Amiga and ST versions of *Operation Wolf* and *Renegade*. They plan to utilize the graphics files from the arcades whenever possible in their 16-bit versions. **Broderbund** raised the curtain on their Amiga version of *Star Wars*, based on the **Atari Games** coin-op version. The program utilizes wire-frame graphics enhanced by color and digitized music.

Graphics resolution and faster frame rate seem to be the order of the day. **Taito** has an impressive line of MS-DOS conversions which are getting substantially closer to the Amiga and ST versions of *Arkanoid, A.L.C.O.N., Bubble Bobble*, and others. Also, according to Alan Fetzer (**Taito**'s President), the programmers working on their conversions work right alongside mini-workstations using the coin-op hardware with the goal of matching the bigger machines normally faster frame rate.

Action Speaks Louder . . .

Epyx has developed a game with a 3-D cutaway view of a mansion's interior as seen from an oblique overhead perspective. In *Devon Air in the Hidden Diamond Caper*, players manipulate their cat burglar characters through a dynamic environment where almost everything but the bathtub can be manipulated or moved. Players try to find the hidden diamonds in the mansion while avoiding cute "pig mice" and "giant canaries." The game is a first quarter release for Amiga, C-64, IBM, and ST.

Another interesting approach can be found in **Paragon**'s *Spiderman and Captain American in Doctor Doom's Revenge*. The story is told on-screen in comic book style layouts (and an actual Marvel comic forms part of the documentation). Full-screen action sequences where heroes utilize both fighting skills and projectile weapons (Spidey's web and Cap's shield) resolve portions of the story (second quarter release).

Konami, publisher of both **Konami** and **Ultra** cartridges for the **Nintendo Entertainment System**, is stepping up its emphasis on personal computer software of its NES hits. Lynn Hejtmanek explained, "Because of the success of our NES products, the personal computer software was moved to a back burner." Now, the company plans to tighten the conversion process and release MS-DOS, and C-64 versions of *Boot Camp, Jackal, Metal Gear, Teenage Mutant Ninja Turtles*, and *Double Dribble* before the end of the year and Amiga versions of *Rush'n Attack* and *Contra* before June (with *Ajax* and *Metal Gear* close behind).

Rainbird's IBM versions of *Carrier Command* and *Starglider II* look like the 68000 machine versions and offer more (the new Carrier Command offers a feature with four real-time windows to keep track of those Manta fighters). The company also plans a first quarter release of *Savage*, a three-level arcade adventure in which the character utilizes the viewpoints of a barbarian, an escape sled, and finally, an eagle. The graphics look better than those on dedicated game systems and the sound is the typical upbeat **Rainbird** "rocker." **Sierra**'s *Silpheed* offers extremely fast scrolling and frame rate in a Japanese hyper-version of a "Centipede"/ "Defender" hybrid, complete with

an American version of the Japanese soundtrack that really "cooks."

Box Office plans a February release of their licensed *Ringling Bros. and Barnum & Bailey Circus* game. Players compete in tight rope walking, trick horse riding, trapeze, and lion taming through nine levels of difficulty (Amiga, Apple, C-64, IBM, and ST—February release).

Cosmi plans to introduce new splash to the *Pac-Man* genre. Their *Chomp!* game enables players to jump from fish bowl to larger and larger aquariums, devouring other fish and attempting to avoid being eaten oneself while growing from goldfish to "Jaws" size. The aquariums are not mazes, but play mechanics are similar to other "eat and run" games.

Hewson Consultants Ltd. (designers of *Uridium*), is part of **Medalist International**, a new affiliated label program at the **Microprose**. *Exolon* (science fiction action with graphics reminiscent of *Terrorpods*), *Netherworld* (a tougher looking *Uridium*-style game), and *Eliminator* (which looks like a space race with teeth) should be the first titles on the shelf.

Titus Software introduced a game within a game idea with *Titan*, a fictitious game in another continuum where players must guide a power sphere through eighty synthetic worlds (i.e. levels) in order to succeed (Amiga, C-64, IBM and ST) and *Knight Force*, a twelve-level action-adventure using the company's familiar 3-D graphics driver (Amiga, ST, and IBM).



Counterclockwise from upper right: Lord British seeks a champion to oppose Exodus in his drama played out in the FCI booth. Neither Wilson nor Sipe jump at the offer. // However, Greg Dykes kneels with his oath of fealty. (Note: FCI publishes the NES version of Ultima). // Taito CEO Alan Fetzer giving music lesson to Wilson and Sipe.

Epyx demonstrated *Axe of Rage* and *Curse Buster* (first quarter—Amiga, C-64, IBM and ST), two medieval action games. The former has four maze-like levels that must be cleared out by the axe-wielding hero and the latter uses voice synthesis and 3-D graphics to enchant players through 100 smaller mazes.

Data East should release *Heavy Barrel* (C-64 and IBM) and *Super Hang On* (a Mac II, IBM, ST, and Amiga title based on a **Sega** license) in the second quarter. Besides the familiar motorcycle race from the coin-ops, the latter is a mouse-driven version which includes an icon-based course builder with different shapes and varying terrain. Courses can be saved to disk and the player can establish checkpoints for fractional times.

Microillusion's *Dr. Plummet's House of Flux* is an arcade game in which one pilots a ship through 28 levels of varying gravity while facing tight spots and alien creatures.

In addition to *Aussie Games* (see Rumor Bag, CGW #55, p.14), **Mindscape** introduced *Sgt. Slaughter's Mat Wars* (a wrestling game which allows players to both manage their fighters and perform the fighting); *International Team Sports* (volleyball, water polo, soccer, swimming, and track); and *Combat Course* (an obstacle course competition with its own construction kit). The company also unveiled *After Burner, Action Fighter,* and *Shinobi* as the three newest versions in the **Sega** line.

Adventures on Land and Sea

There is a renewed emphasis on introductory style adventure games. Icon-driven games like **Origin**'s *Tangled Tales: The Misadventures of a Wizard's Apprentice*, a tongue-in-cheek approach to fantasy adventure and **Interplay**'s Amiga version of *Neuromancer*, as well as menu-driven games like **Microillusion**'s *Scooby Doo* (due later this year on IBM) with its refined *Zak McKracken* look and **Epyx**'s *Omnicron Conspiracy* were announced. The Scooby Doo adventure will contain four adventures in one (Mystery of the Aztec Sea God, Ski Village, Haunted Mansion, and Western Town). The *Omnicron Conspiracy* is a space detective adventure with 250 rooms. It is not combat intensive, has an estimated 20-40 hour solution time, and offers what the company calls "tongue and cheap" humor. For example, what do you say to a pusher who offers you a drug called "Dex-Boost?" "Just Say No!"

Undersea adventure will be a recurring theme in 1989. The **Infogrames** (French company purchased by **Epyx** in November of 1988) division has prepared *Undersea Commando*, a "James Bond" superspy adventure where players try to foil the "Yellow Shadow." It is essentially an action game with a strategy wrap. **Cosmi** is offering a challenging action adventure called *Navy S.E.A.L.*. Players "qualify" for active service in four different disciplines and then, participate in realistic commando style missions. **Sierra**'s Jim Walls, designer of *Police Quest*, has now collaborated with a former U.S. intelligence officer to create *Code Name: Ice Man*, a 3-D adventure game based on S.E.A.L. service.

In addition to these military/intelligence themes, **Intracorp** will release the IBM version of *Search for the Titanic* in February. The program offers 75 wrecks to explore, 100 navigational maps/charts, and 47 ports of call. The game uses digitized photos from the expedition.

Action style adventure will also be prevalent in 1989. **Kyodai**, a consortium between **Broderbund** and 11 Japanese companies, will release its first three products by summer of 1989. *Ancient Land of Ys* is an action/adventure quest for the six lost Books of Ys (IIGS and IBM). *Hydlide* (IBM) takes the player from medieval villages to outer space. The game uses a fascinating combination of overhead view and 3-D terrain with excellent resolution. The story line begins with as little information as possible. There is a crack in the earth with monsters coming through. The player's job is to find out why. Terrain includes forestland, tunnels, cloud city, a medieval castle, futuristic castle, parallel dimension, and 200 screens of outer space. *Psychic War* (IBM) is another sci-fi fantasy game from **Kyodai** in which strategy and puzzle-solving are as important as arcade action.

Other action-adventure titles include: **Epyx**'s *Trials of Honor* (a French "Defender of the Crown"-style game); **Microprose**'s *Sword of the Samurai* (a working title for a game built on the *Pirates* technology and offering more emphasis on diplomacy); **Activision**'s *Last Ninja 2* (set in New York and much friendlier as it is easier to pick up objects and there is no ninja magic); **Electronic Arts**' *Project Firestart* (a sci-fi/horror game for the C-64); and **SSI**'s *Hillsfar* (a role-playing game in the AD&D™ line with an arcade style combat arena - IBM and C-64—March release).

Within the action-adventure approach, **Mindscape** allows players to command a six person S.W.A.T. team during a *Hostage: Rescue Mission* (Amiga, C-64, IBM, and ST - first quarter release scheduled). The product offers new perspectives to street scenes, strategic options in placement of snipers, and ability to operate multiple characters.

Lucasfilm Games announced that the company would be producing the *Indiana Jones and the Last Crusade* game, but could not reveal details on the game without compromising the film plot. The company does expect to complete the game as soon as possible after the May release of the film and has promised information for CGW readers at important junctures prior to the game's release.

Sequels will also abound in 1989. *Might and Magic II* has just arrived from **New World Computing**. This one has better graphics than their first, automapping, and new character classes and spells. **Mindscape** just unwrapped the Macintosh version of *Deja Vu II: Lost in Las Vegas* with the ST version due in a few weeks. Players take on the role of Ace Harding, second-rate detective, in this adventure using the familiar **ICOM** interface from *Deja Vu, Uninvited,* and *Shadowgate*. *Space Quest III*, using **Sierra**'s Sierra Creative Interpreter (which just gets better and better), should provide a chance to rescue those crazy guys from Andromeda before the quarter is out. **Cosmi** is building on *The President Is Missing* approach for an intriguing new mystery game entitled,

Presumed Guilty. The pacing is supposed to be faster than the original game.

In a different direction, Roberta Williams has returned to her love of Agatha Christie mysteries, added a distinctive **Sierra**-"Mel Brooks" touch of humor, and developed a murder mystery set in New Orleans in the 1920s. Another Sierra 3-D adventure to watch for is *King Arthur* (a quest for the holy grail presented by two professional animators of television cartoons). Long term projects to be expected from the company are a female version of "Leisure Suit Larry" (working title is *Polyester Patty*), a 3-D horror game from Mark Crowe, and a space game not related to *Space Quest* from Scott Murphy.

The Magic Candle, available from **Miles Computing** offers more than 200 hours of play. Players select their parties from pre-designed characters by means of an interview and resume' process. There is an ability to split the party and assign different tasks to each, day and night vary according to season, and there are no experience points in the game. Instead, the party grows by using and learning skills through experience and "reading" books.

Other adventure products include: **First Row**'s *The Honeymooners* game (an animated adventure built around three basic puzzles); *Twilight Zone* for the Amiga from the same company; *Faery Tale Adventure* for the Macintosh II from **Microillusions**; the same company's *Dondra* for the IBM; **Microprose**'s *Covert Action* (a menu and window driven spy adventure where you use your gun last); and **Koei**'s as yet untitled ancient chinese adventure game.

Strategic Mission

Wargames are few and far between. **Koei** expects to release *Nobunaga's Ambition 2* with use of generals and other subtle improvements. **SSI** just released *Battles of Napoleon* and *First Over Germany* (sequel to *50 Mission Crush* and *B-24*) is due this quarter. **Interstel** is releasing a C-64 version of *Empire* and **SSG** has just released *Halls of Montezuma* on IBM.

Otherwise, the strategy games are basically non-standard. **Cinemaware**'s *Lords of the Rising Sun* (Amiga - first quarter) utilizes an interface for its tactical battles that is so elegant it may well become a standard. Unlike other **Cinemaware** titles, this one can be played with or without the arcade sequences. The game involves a classic struggle between two brothers during 12th Century Japan. Both the maps and the strategy are dynamic and real-time. **Microprose**'s *Sword of the Samurai* for the C-64 uses some similar approaches in its battle sequences.

Melbourne House will offer *War in Middle Earth* during the first quarter. The game features arcade quality graphics and a *Risk* style level of difficulty. Players control the party from the "Ring" trilogy, as well as any allies which the party can convert through offering important artifacts. The map from Tolkien's world and the characters seem carefully treated in this strategy game of fantasy conquest.

Abstract strategy games may be making a comeback with **Taito**'s revival of *QIX*. It is a territorial conquest game that was a big hit in college and university towns a few years ago. In addition, **Leisure Genius** is offering computer versions of *Risk* and *Clue: Master Detective*, based on the expanded version of the popular board game. Card games will also make their appearance in 1989 with *Trump Castle* from **Intracorp** and *Hoyle's Book of Cards* from **Sierra**.







Clockwise from above: One of Data East's "Bad Dudes" // Which two of these belong together? // CGW staff looking for Leisure Suit Larry in the wrong place: the Mediagenic booth

Stimulating Simulations

One area of strategy gaming that is not suffering is the simulation. **Velocity Software** has released *Jetfighter*, an IBM flight simulation of the F-14, F-16, and F-18. Designed by Robert Dinnerman and Moses Ma, who designed *F/A 18 Interceptor* for **EA**, it is everything the Amiga product was and also has an external view from any angle, and a full detailed terrain map of California as added features. *Chuck Yeager's Advanced Flight Trainer 2.0* from **Electronic Arts** will teach advanced skills necessary to perform aerial stunts such as the Blue Angels or Thunderbirds would use. **EA** also plans to market a Chuck Yeager audiotape where the veteran pilot offers specific advice on situations included in the simulation. **Activision** is pushing the graphic capability of the C-64 with their *F-14 Tomcat*, a game which emphasizes dogfighting. There are 80 different missions which can be accessed separately or played as a campaign game over an entire "career." In addition, **Lucasfilm Games** is expected to publish a third quarter follow-up to *Battlehawks 1942*, building on the technology introduced in that game.

Tank simulations, as we noted in our December review of *Steel Thunder*, will be a major factor in 1989. **EA**'s *Abrams Battle Tank* is an IBM product with slick graphics. Bing Gordon, **EA** vice-president, told us to "Think of it as a tank simulation for one commander rather than a squadron leader." **Microprose**'s *Tank* (working title) will take modern battle doctrine seriously. Our sneak look at the product was impressive. It looks like **Microprose** has another hit under development. In yet another approach, **Spectrum Holobyte** revealed that they are working on the *Electronic Battlefield* series, to be marketed in conjunction with several of the information networks. The company has not officially confirmed that the series will include "tanks," but there are to be three different products reflecting air, land, and sea. It seems like a safe bet, though.

Electronic Arts has *688 Attack Sub* in their Quality Assurance process, so release is imminent. The product supports the **Ad Lib** sound board and features IBM graphics that really push the hardware.

Finally, a non-military vehicle simulator is under development at **Spectrum Holobyte**. A series of big city driving simulations using 3-D filled graphics, map mode, helicopter mode, and authentic skylines is projected. The IBM demonstration looked great and the game is expected to support human vs. human competition by utilizing null modem hook-ups.

The Sporting News

Beyond **Epyx**'s introduction of the IBM conversion of *The Sporting News Baseball*, there are a number of new baseball games in the near future. **EA** plans to release *Earl Weaver Baseball 2.0* which features more emphasis on the pitcher/batter confrontation; **Data East** plans to develop a unique approach to baseball with Scott Orr, founder of **Gamestar**, (Orr says it will be "somewhat" stat-based and enriching); and **Cinemaware** plans a *TV Sports: Baseball* game (other games expected to be published in the series include: tennis, basketball, and possibly, ice hockey).

For different sporting events, **Gamestar** has developed *Motocross* for the IBM, **EA** is expected to release *Kings of the Beach*, a professional beach volleyball game for first quarter release; and the long awaited *John Madden Football* will ship "For sure, by April 1st."

Technical Advances

Those who are looking toward CD-I (Compact Disc - Interactive) might be looking for that system in first quarter of 1990 rather than Christmas of 1989. However, one keynote address at WCES noted that the current CD-ROM extended architecture is providing a bridge between CD-ROM and CD-I. **Cinemaware** recognizes this and is releasing *Defender of the Crown CD-ROM* for the IBM. It is the familiar game with a tremendously enhanced soundtrack.

Others are not confident about the system. Alan Fetzer of **Taito** pointed out to CGW that the coin-op laser-disk based games had tremendous maintenance problems and expressed his reticence in believing that the hardware can hold up.

Here, We Go Again

All in all, the show demonstrated that there will be a great number of titles in 1989 and hopefully, something improved and exciting for everyone. So, as our clever pilot commented upon our landing, "There you have it folks. Another victory for technology and skill over fear and ignorance."

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6. Contest open to legal residents of the U.S.A. and Canada (other than Quebec).
7. Odds of winning depend on number of eligible entries received.
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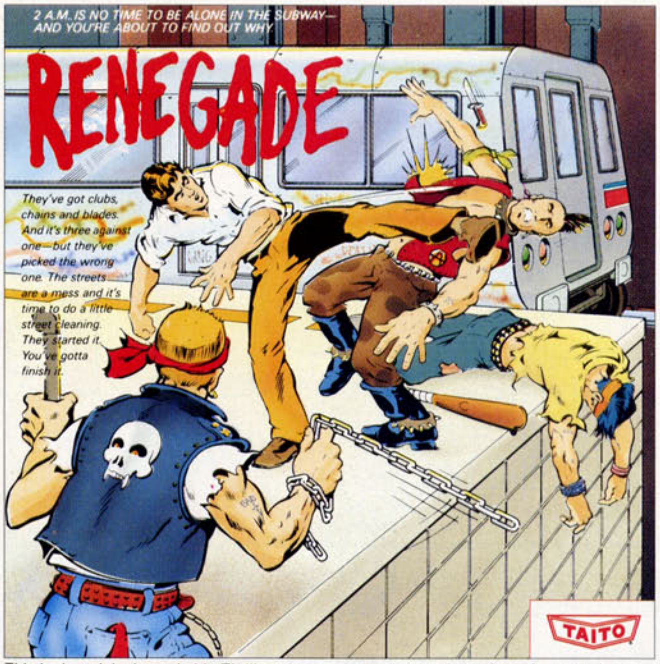
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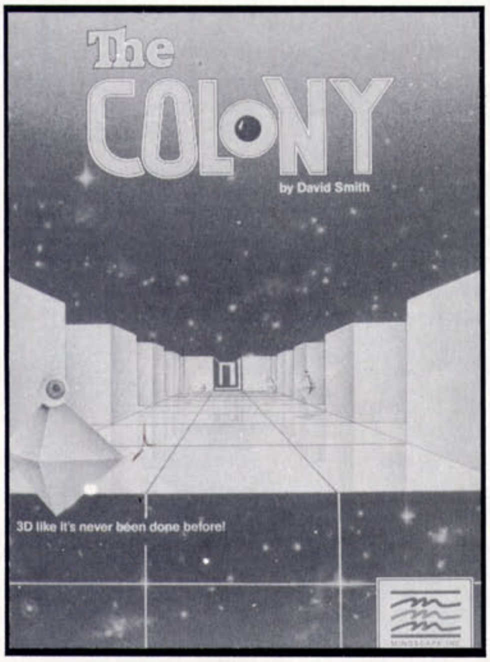
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The Colony

by Alan Roberts



Title:	The Colony
System:	Amiga, Macintosh (512K required, 1 MB and hard drive recommended), and IBM
Version Reviewed:	Macintosh
Price:	$49.95
Designer:	David Smith
Publisher:	Mindscape Northbrook, IL

It's time to get serious here. Board up your windows, yank the phone out of the wall, and tell everybody you know that you're moving to Tibet. Finishing this game will take some time and dedication.

In *The Colony*, players take on the role of Regional Marshal for a given sector. As the marshal, you find yourself responding to a mayday signal from a scientific research colony. You have a near-miss with a black hole and crash-land on the planet. Therefore, the game begins when you regain consciousness. You have to: 1) rescue survivors, if any; 2) repair your damaged ship; 3) use whatever force is required (it'll take quite a bit) to destroy an unknown alien race on the verge of invasion. As Marshals from a more primitive era might say "It's all in a day's work, Ma'am".

Interfacing With the Future

Imagine a cross between the arcade game "Battlezone" and the movie "Aliens." Then, combine that with the same style of malicious puzzles that kept people awake late at night with "Shadowgate" and "Uninvited." Now, you have a mental image of *The Colony*.

Using a mouse, players maneuver their characters through the marshal's crippled ship, the planet's surface and an eight-level colony. Players can choose to view either see-through "wire frame" graphics (like the original "Battlezone") or slower-moving hidden-surface animation. Steering the characters takes a bit of getting used to; putting the cursor slightly above the center of the viewscreen moves one slowly forward, below the center moves one slowly backwards, and left and right spins the character in place. The further from the center, the faster one moves.

Combat is straight-forward: put the enemy in the marshal's crosshairs and click the mouse. Damage received is taken from the character's energy levels (shown in the gauges in the upper left).

When a character gets close enough to an object that can be manipulated (a desk, a door, a chest) the animation is replaced with a bit-mapped illustration. Clicking on an article allows it to be examined. To return to the real-time animation, either click on the "Exit" dialogue box or press return (I recommend the second option; moving the mouse to the bottom of the screen hurls your character backwards across the room).

Coming under Alien Fire (My Gripes)

The game is not copy-protected, and works well on a hard drive. **Mindscape** uses a decoder scheme where you have to key in a secret combination periodically (to start a saved game, to exit the ship, etc). Although this is *normally* fairly unobtrusive, at one point the marshal must find a code and travel to the very depths of enemy-held turf to key it in. One cannot save the game at this point, because saving the game will changes the code. This is sadistic.

Death comes by running out of energy. This is portrayed by showing the energy levels plummet on screen before you are turned into a pile of scrap. Still, there are a few times when marshals can be killed instantly and players have to guess what got them. Being given some sort of post-mortem would only be fair.

There are a few tough mazes in the colony. Using the standard ploy of dropping different objects doesn't work in this game, because the only objects one can pick up and take are virtually indistinguishable from each other. If one returns to a room he has just ransacked, everything has been tidied up. More than once I wasted time double-checking rooms that had already been searched.

Although the sounds are an enhancement, there were times when they slowed the game to a crawl. It would be tempting to remove the sound files.

Finally, even after some practice, maneuvering can be a problem. Desks and chests can pop you out of the animated game play at annoying times (holding down the "option" key will disable this problem).

Marshalling Your Forces (Conclusion)

Although many games claim to be "the first of a new generation", this one can do so honestly. Most games give players a detached overhead (or side) view of what's going on. It's easier to take on the character's point of view (figuratively speaking) if you literally see things from his perspective.

Along with lots of action, there are several mysteries to solve: the fate of the scientists, the nature of their research, and the origin of the aliens. More practical problems include operating machinery and mapping a complicated complex that seems to exist on more than three dimensions. Although there are some poignant spots in the game (finding a child's abandoned toy, for example) there is only a limited

(Continued on page 56)


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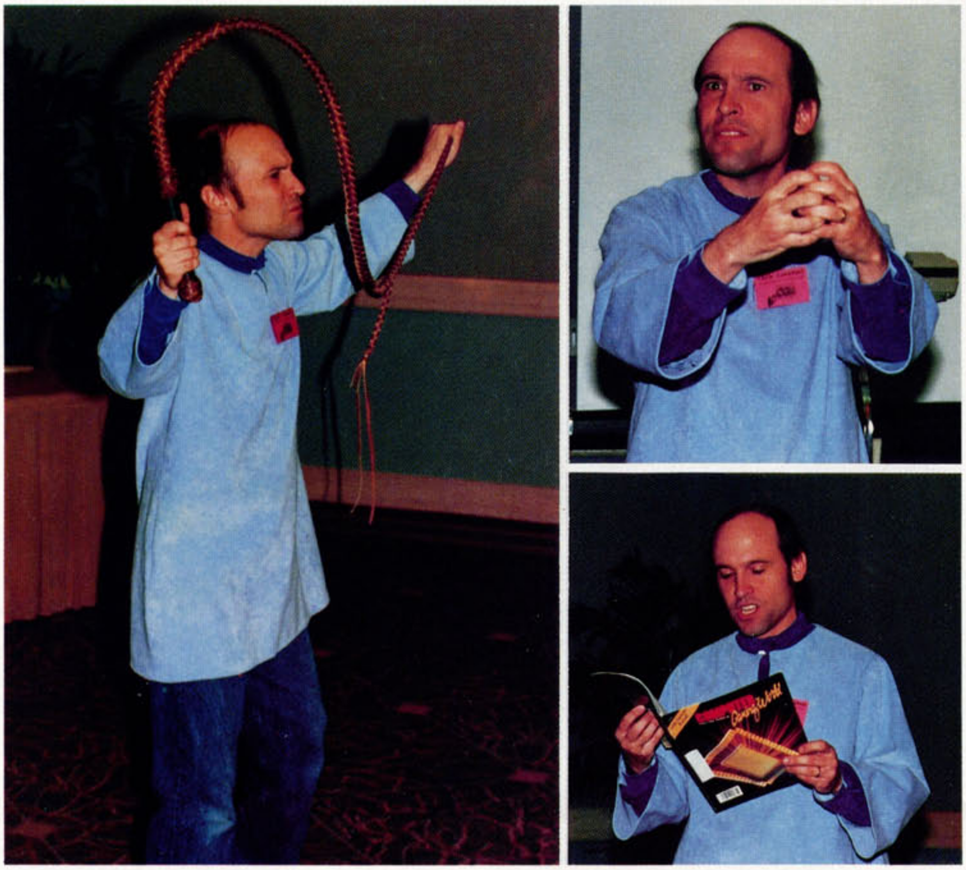
I Can't Believe Grown-ups Do This For A Living

Notes on the Conference on Computer Game Design



Clockwise from Top: Conference attendees wave to CGW camera. Note presence of Ozzie Cadenza in back row center.// Conference staffers Tim Brengle (L) and Dave Mencone demo their Siameses Twin simulator at the CGW hospitality suite. // A typical discussion between publishers caught on film as Russell Sipe and EA CEO Trip Hawkins engage in gentlemanly discourse. // While in this photo, Noah Falstein (Lucasfilm Games) and Chris Crawford have a typical discussion between game designers. // World famous designers take a break from the grueling task of discussing design theory.

Imagine Chris Crawford (*Balance of Power*) wielding a bullwhip as an analog to creativity, Dan Bunten (*M.U.L.E.*) challenging game designers (with tongue in cheek) to admit that they are nerds/geeks, and the creators of computer role-playing games debating over what storytelling really is. Those events were but three of the many fascinating discussions held at the recent Conference on Computer Game Design last September. The brainchild of Chris Crawford, this foundational conference was held by and for subscribers to Chris' *Journal of Computer Game Design* (see abstracts in this issue). Over 150 designers, developers, programmers, and producers from all over the entertainment



Chris uses gestures, whips, and CGW to drive home his points.

software industry converged on the Miltpitas Holiday Inn in order to continue building a sense of an independent artist's community and improving the games we play.

Chris Crawford - Creativity and Game Design

Chris Crawford is always stimulating. He began his lecture with the assertion that creativity is "magic" and defies rational definition. Then, he proceeded to examine the creative process rationally. He suggested that there are two basic methodologies toward creativity. One method is to approach something old from a new perspective and the other is to develop something completely new and different.

The former is *incremental* creativity, to take an existing idea and do it one better. The latter is *grand leap* creativity, which makes a clean break with the past and attempts to do something totally new and different. Crawford admits that grand leap creativity doesn't really occur on a pure scale, but it is what he personally strives for.

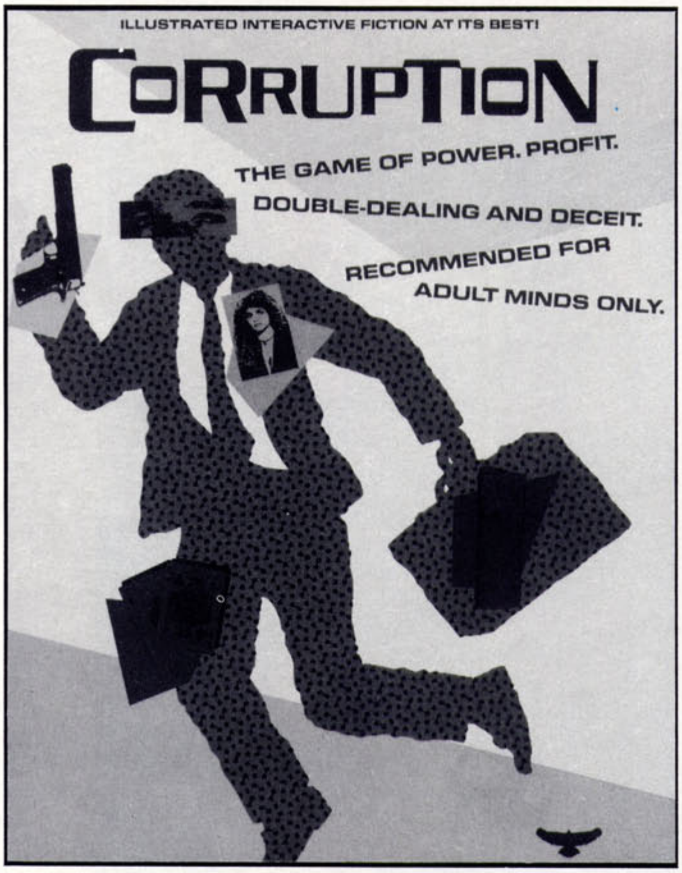
The incremental method involves fine-tuning a *few* systems rather than *every* system. "A game," espouses Crawford, "is a system with a huge system of interacting sub-systems." Crawford stated that 99% of games are incrementally created, but said, "Don't take my word for it. Take *CGW*'s." He, then, read "Taking A Peek!" from various issues of CGW which illustrated his point: " . . . an attractive 'Arkanoids'-type game . . .;" "Think of Pac-man in hyper space!" " . . . a Zaxxon type game . . .;" " . . . another arcade spaceship shoot-'em-up . . .;" and so forth.

Chris noted that typically one game in 50 (2%) is a hit. Using his own criterion, he states that 20% of his games have been hits. Since, therefore, he has a better than average "hit" rate and he puts his energy into "grand leap" designs as opposed to "incremental advance" designs, he stated that he felt qualified to offer suggestions to the designers at the conference on grand leap design.

Don't be seduced by technology, because that is getting the cart before the horse. Instead, the optimal approach is to

(Continued on page 28)

On The Eve of "Corruption"



Rainbird's Contemporary Adventure Game

by Frank Eva

TITLE:	Corruption
SYSTEM:	Amiga, Atari ST, IBM,
V# PLAYERS:	1
PRICE:	Amiga & ST $44.95 IBM $39.95
DESIGNER:	Magnetic Scrolls/Rainbird
PUBLISHER:	Mediagenic Menlo Park, CA

Imagine this: Your name is Derek Rogers, an ambitious yuppie on your way up the London business ladder. Your ability at stock market maneuvering catches the eye of David Rogers (apparently not related), who makes you a full partner in his firm, gives you your own office, a big money salary, and your own BMW. Now, just as soon as you begin to celebrate your achievement, things start going terribly wrong. You have become the chief suspect in an insider trading scandal, and no one is rushing to your defense!

In the past, Magnetic Scrolls has produced *The Pawn*, *Guild of Thieves*, and *Jinxter*. With no mythical lands, sorcerers, or elves here, *Corruption* is a "true-to-life" adventure.

The Amiga and ST versions feature 80 column text and have excellent illustrations in a style akin to artistic paintings. These can be pulled down over the text, but pure text adventurers can play without the use of the illustrations, since they do not figure heavily in the resolution of the actual adventure. For example, in an early scene, you can plainly see a cleaning lady, but try as you may, the program keeps saying she is not there. Obviously, at this point in the game, her part in the adventure is only atmospheric.

Pull down menus also provide for some other nice features, such as the ability to instantly reveal all of the exits for the current location. Other menu items allow for easily saving and reloading game positions that have been stored on a separate data disk, turning graphics and printer on or off, and also toggling the speech mode. The speech mode, which initially seemed a positive addition to the Amiga version, becomes nothing more than a novelty once you realize that phonemes are not used. Thus, a word such as 'office', is pronounced 'O (long) fice (as in ice)'.

The documentation includes a 'quick start card' providing loading instructions, an 'adventure guide' or quick reference card detailing special functions, a 'gameplay manual' that explains methods of communicating with the game, as well as providing encrypted hints, and an audio cassette which contains the basic story (It also contains the program's original musical score for those who, due to system limitations, can not access the music).

Another nice feature is that the player is allowed to define the ten function keys for frequently used phrases. This *should* save typing time, but since there seems to be no way to *save* those definitions, this feature is only of value when one intends to play for an extended length of time.

The parser is limited, but should suffice. The main thrust of the game is away from object manipulation and toward character interaction. There are fifteen personalities that the player must learn to communicate with.

Each action adds one minute to the game clock. This means that certain developments are going to happen at specific times. You will have to be in the right place at the right time in order to catch the action. It also means that the player has a limited time before he will be hauled off to jail. Once there, the game is over. Maintaining your freedom is essential in order to untangle yourself from the long arms of the law.

Although **Rainbird** recommends *Corruption* for "Adult minds only," this does not mean that the language or illustrations are 'R' rated. This reviewer saw very little to give the game the air of "adults only." However, Corruption is not a game that children could readily comprehend or even enjoy. The themes are adult and the game play moderate to difficult.

One minor drawback, relative to software coming in to this country from overseas, is the cultural barrier. Certain expressions may leave the player somewhat puzzled. For example, in one scene you are told that the secretary has made her office 'homely' by the addition of family pictures on the wall and brightly colored flowers on her desk. Over here, something that is homely looks rather unattractive. This cultural barrier is more interesting than inconvenient, however.

By all means, make a map of the game, and explore all locations. There seem to be no really illogical procedures required to be successful at Corruption. Just remember that you are thrown into the world of cutthroat business with its power plays, greed, deception, and double dealing. You must become ruthless in order to survive.

Adventure gamers who have had their fill of slaying dragons, etc., will surely find Corruption an intriguing change of pace! **CGW**

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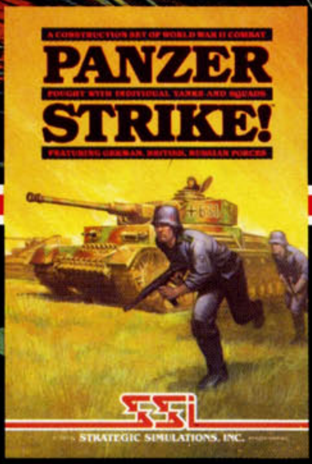


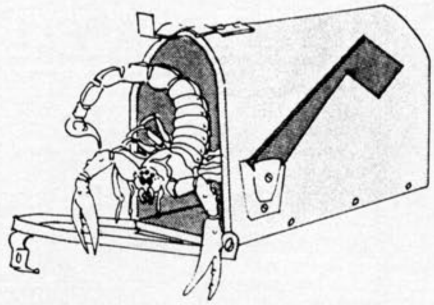
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Scorpion's Mail

From time to time, Scorpia leaves the common room at that famous tavern of the mind, "Scorpion's Tale," and answers the mail delivered to the back room.

Warning: There are specific hints about popular adventure games located in this vicinity.

It's time to trek into the cozy back room and rummage through the mail bag. Sorry to say, tho, that mail service has been pretty bad lately. Through most of November and December, letters have been taking almost a week, if not more, to reach me. That, mind you, is *domestic* mail. Usually service improves as the post office gears up for the December rush of Christmas mail, but not this year. CGW sent me a card. It took 9 days to get here! My apologies to all for slow responses to your queries. There isn't, alas, much I can do about it.

Manhunter

There is both a Harry and a Harvey (easy to confuse). You have to figure out the last names of both of them to proceed with the game. Harry is day two, and Harvey is day three. Some people, on the other hand, haven't managed to get past day one. This is probably because they didn't do the right thing at the video game in the bar. Remember: less is more.

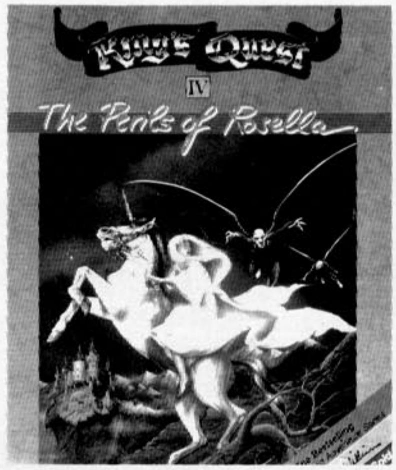
King's Quest IV

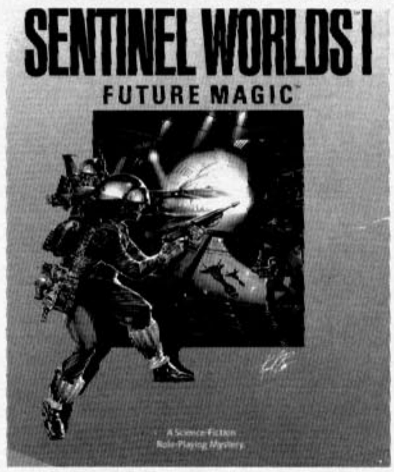
The bridle remains an elusive prize for many (and this comes as no real surprise, being one of the nastier puzzles in the game). You won't find it until after you're out of the whale. be sure to look everywhere. Also, if you are having trouble finding the whale in the first place, it doesn't show up until after you've been to Lolotte's and gotten her first quest. Save the game after that so you won't have any problems (well, not too many . . . grin!). The gold ball, which a few are having trouble locating, is actually in plain sight, although not obviously so. Look carefully at screens near water. Keep in mind that Rosella's position on the screen is often crucial to finding or obtaining items.

Bard's Tale III

Several people have been unable to obtain a rainbow rose in Lucencia. Have you seen anything else that was rainbow-colored? There is a connection between the two of them. Also, for those who are







having problems handing out flowers, the bard's song at the hall is helpful.

Leisure Larry II

A number of folks are having a hard time getting started. Remember it doesn't pay to be too honest here. For those who have gotten a little further along, the spinach dip is just for points, and isn't otherwise useful. The trick is figuring out the right way of getting rid of it (There are, by the way, a number of actions you can do in this game that will bring points, but do not advance the plot, so you could finish the game without a perfect score. So unless you're a perfectionist, don't worry about it too much).

Future Magic

Several have written to me, asking if there is more to the game than shooting down raider ships. There certainly is, but it will take awhile before the "real" action starts. Just keep after the ships, and watch for a new beacon on Caldorre. Also, there really is no place where you can purchase prohibited weapons. All of them must be found in various places throughout the game. One more thing:

(Continued on page 24)

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(Continued from page 21)

Scorpion's Mail

some of those who have gotten far along have complained that their energy levels are too low to perform certain important tasks. Be kind to animals, even hostile ones. Look at them sometimes; they can use a little help.

Wasteland

I have been advised by a couple of readers that it is possible to kill the Night Terror, if you keep at it long enough, especially with a Proton Axe (which requires no ammunition). There isn't any reason to do this, but if you're feeling especially hostile, go ahead (grin). The helicopter is only good for one ride, and you need a high agility to train for it. Since you can walk to anyplace the helicopter can take you, you may want to skip it entirely. Finally, you will not be able to get into Darwin Base until after you have been in Sleeper Base (which in turn means having successfully gone through the sewers).

Ultima V

Food is a problem for many, especially now that almost everyone knows it's bad to steal crops from the fields (including Iolo's). Unfortunately, there isn't any secret method for making money quickly. The best thing to do is keep your party small at the start (no more than four), sell everything you don't really need, pray for trolls under bridges (heh), roam around a lot at night (when chances of encounters are better), and always have the most intelligent person in the party do your buying and selling, to get the best prices. On another matter, a number of people, especially those who have not played IV, are having a hard time finding dungeons (which are not marked on the maps). They're all in the mountains; look for a little pile of boulders, which marks the entrance (the words to open them, however, you'll have to learn on your own).

Wizardry V

There are several locked doors on the first level. All but two (the silver door and the bronze door) can be opened eventually by either lockpicking or the Desto spell. If these aren't working for you, wait awhile and try again when your party has gone up a level or two. Unless a door has some special description to it (aside from being locked), you can usually get it open without needing a special item.

Demon's Winter

I have heard from Craig Roth, author of the game, that the problem with the orb/crystal has been fixed. It is now impossible to get the orb before you have the crystal (which will save the lives of many a party). Also, he tells me that, although this is not mentioned in the manual (left out by accident?), you can erase characters you don't want during their creation by simply hitting return at the name prompt (wish I'd know about this one a lot sooner!). This will help you avoid having to save and then delete unwanted characters. Thanks for the info, Craig.

Hmm . . . seems we've reached the bottom of the bag In the meantime, if you need help with an adventure game (I'm not too helpful with arcade games, as I don't play many of them), you can reach me in the following ways:

On Delphi: visit the GameSIG (under the Groups and Clubs menu). On GEnie: Stop by the Games RoundTable (type: Scorpia to reach the Games RT). On The Source: send SMail to ST1030. By US Mail (include a self-addressed stamped envelope if you live in the United States and expect an answer): Scorpia, PO Box 338, Gracie Station, New York, NY 10028.

Until next time, happy adventuring!

CGW

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IF YOU'VE EVER FLOWN a PC, you know how it can simulate every nuance of an airplane's performance envelope. And if you concentrate hard enough on the instruments, you'll soon learn what the limits are.



"My first burst of tracers skimmed the Val's tail. Just as I corrected my aim, he dove. I stuck like glue to his plane, taking it apart by bits and pieces. Suddenly, he pulled up and bailed through the shattered canopy. Moments later, the Val exploded..."

But when you're making a torpedo run at an enemy flattop, with flak blowing by your canopy and two Zeroes chewing up your tail, all that goes out the window. And you learn to fly by the seat of your pants.

That's the idea behind *Battlehawks 1942*,™ the new WWII naval air combat simulator from Lucasfilm Games. Besides the intellectual challenge of mastering six classic carrier planes, you get the white-hot rush of diving into some very hairy situations.

RELIVE HISTORY. OR REWRITE IT.

Battlehawks 1942 gives you an authentic pilot's eye view — from both sides — of four battles that turned the tide in the Pacific. As an American carrier pilot, you'll fly Wildcat fighters, Dauntless dive bombers and Avenger torpedo bombers. From the Japanese side, you'll fly Zeroes, Vals and Kates.

You'll tighten up your combat skills in a dozen training missions, then fly more than 30 real ones, from the Coral Sea to the Santa Cruz Islands.

EVEN THE THEORY IS REAL.

The technical detail and historical depth of *Battlehawks 1942* are bound to satisfy the most hard-core simulation buffs. Everything has been exhaustively researched, right down to the optimum airspeed and attack angle for dropping torpedoes.



"In early 1942, American planes were no match for my Zero. I was a hawk in a flock of geese — soaring, looping, pouncing, destroying. I was truly saddened for the brave men in those sluggish planes. All too soon, the planes got better..."



Bombing a moving ship half a mile below, diving at 250 mph and dodging flak, can be a little tricky.



Your Wildcat's heavier armor and guns win in a shootout, but watch out if a Zero gets on your tail.

Flight characteristics and instruments are authentic. So are weapons and enemy tactics. About the only feature that isn't authentic is something combat pilots never dreamed of. An instant replay camera.

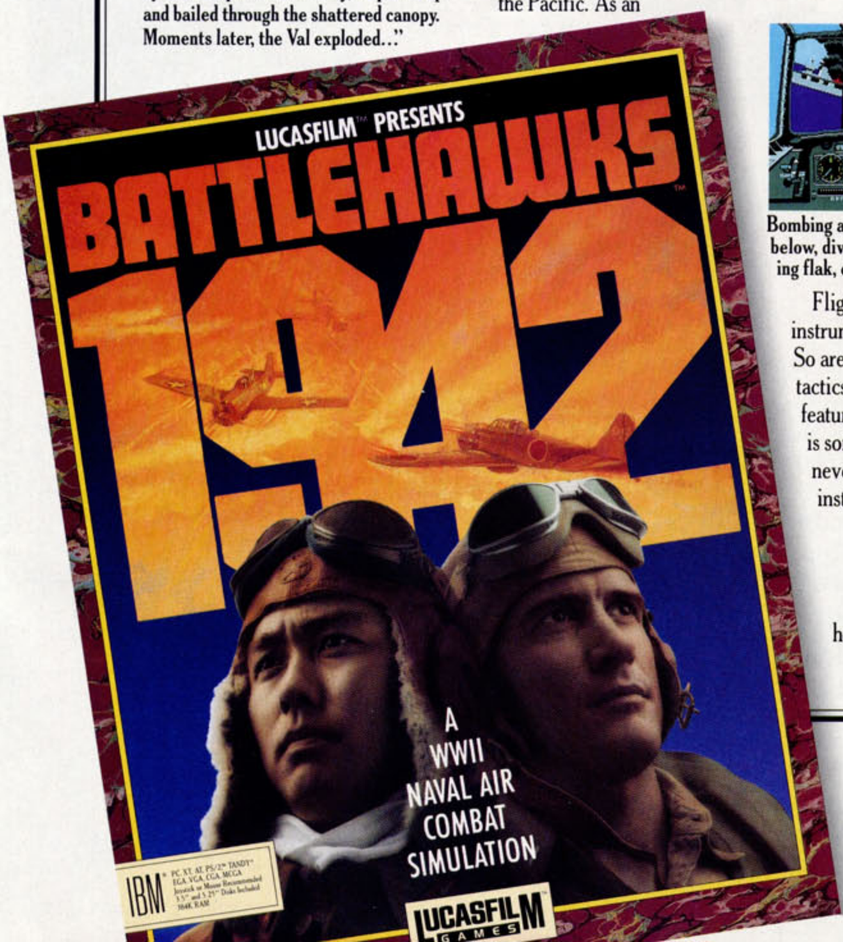
GROUND SCHOOL IT ISN'T.

We asked WWII pilots how to make *Battlehawks 1942* feel like the real thing. To a man, they said make it *intense*.

So instead of polygon-block graphics, we use high-resolution, digitally-rendered images. Ships and planes look almost photographic. Bombs and torpedoes explode in infernos of flames and smoke. The feeling, as one veteran pilot put it, is like flying into a beehive.

And that's where the science leaves off, and the fun starts.

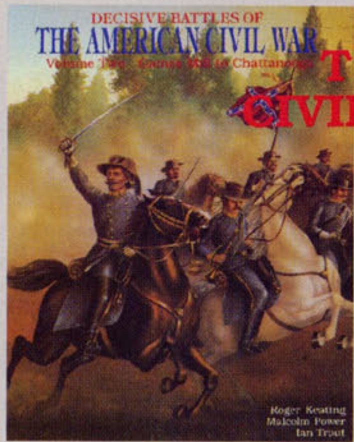
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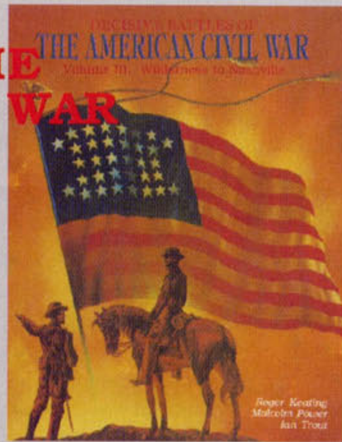


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GETTYSBURG
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Can you, standing in for Robert E. Lee, stall McClellan's Federals outside Richmond... ?
Or will you, as George Gordon Meade, stop the Army of Northern Virginia at Gettysburg and fatally turn the war against the Confederacy... ?





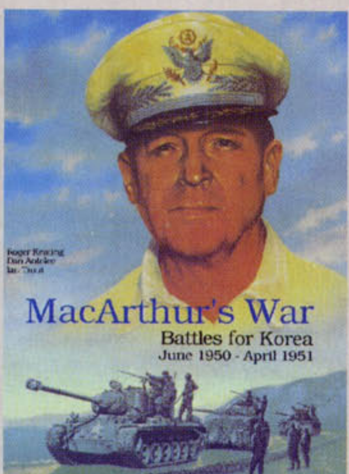
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SPOTSYLVANIA
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ATLANTA
FRANKLIN
NASHVILLE

Can you, commanding the veterans of Robert E. Lee's Army of Northern Virginia, stop Ulysses S. Grant's Army of the Potomac from capturing Richmond... ?
Or will you, as William T. Sherman, defeat Joe Johnston, destroy Atlanta and march to the sea... ?

The ***Decisive Battles Game System*** lets you step into the past and command the armies which fought out these great battles. The simple menu structure which drives the game is so easy to use that you'll be issuing orders like a veteran ten minutes after booting up the disk. You'll have complete control over the computer battlefield when you use the comprehensive wargame construction set, **WARPLAN™**, and our unique graphics editor, **WARPAINT™**.

WARPLAN™ lets you construct original battles of your own design as well as creating endless variations to the historical scenarios. **WARPAINT™** gives you complete graphic control over the icon and terrain symbols used in the game. Shapes and colors can be changed at will to produce your own special effects.

Available now for the Apple II Family and C64/128 computers. Available early 1989 for IBM, Amiga, IIgs, and Macintosh.



The Korean War

'Across the 38th'
Taejon
Naktong Bulge
Unsan
Chongchon
Chosin Reservoir
Chipyong
Imjin

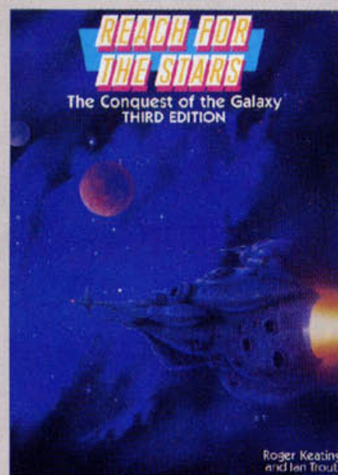
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Low Blows and Other Winning Moves

Interplay's "Battlechess"

by Ken St. Andre



TITLE:	Battlechess
SYSTEM:	Amiga
# PLAYERS:	1-2
PRICE:	$49.95
DESIGNERS:	Interplay Productions
PUBLISHER:	Interplay Productions Costa Mesa, CA

Question: What metamorphoses from a lifeless lump of stone into a grinning hulk of a monster, thunders across the battlefield, grabs the fairest of the fair, and gobbles her up like a stick of gum?

Answer: A rook taking a queen in **Interplay**'s new Amiga version of *Battlechess*. You have to see it to believe it.

Battlechess reminds me of *Archon*. The pieces act out the combats, but they follow Chess rules--the taker never becomes the take.

I haven't matched Battlechess against *Sargon 4* or any of the celebrated near master level programs, but it's good enough to beat me on an intermediate level, and if one set it on any of the higher levels (level 7 or higher), I think it would give any player or other program a real good run for the money. Interplay has a level control in the program that allows you to set the thinking time anywhere from 1 to 10,000 minutes. The latter may be a bit excessive, and it would be nice to have fractions of minutes allowed, for those times in the end game when even 30 seconds is an eternity.

Still, the fact that Battlechess can play a mean game of chess is not the point of this game, nor is it what makes it enough fun to drag me away from *Pool of Radiance* or another CRPG. Watching the carefully storyboarded and choreographed battles when the pieces take each other is the true kick. If you ever want to see your Amiga at its full power, then you must play this game. Battlechess is an artist's program and, while Mike Quarles deserves full marks for packing the program into one 800K disk, the real star is Tod Camasta, and whoever helped him with the art.

By my calculations, there are 35 possible combats, and one variation to cover pawns taking each other en passant. Five of those combinations are very, very rare, and are only seen when checkmate occurs. Technically, a game ends with checkmate, and kings are never taken, but Interplay has included story-battles for the final coup-de-grace. Each battle, from pawn takes pawn to king takes queen has something distinctive and amusing about it. I wish I had a large screen TV to display this game, since some of the hilarious detail gets lost on a 12-inch monitor.

Interplay tried hard to include those features most wanted by chess players. The program allows you to set up your own chess problems, or rearrange the board to achieve any desired configuration. Once you have placed your pieces on the board, the program then switches back to regular game mode, and you take it from there. You may also play chess in the regular two-dimensional top down mode if the 3-D perspective makes it hard for you to concentrate or visualize the board. 2D chess doesn't include the great visual and sound effects, but it is easier to understand who's doing what to whom.

Battlechess contains several standard chess program options; for example, one can play human vs. human, human vs. computer, or computer against itself. One can also link to another Amiga via modem and play an opponent in another location. This requires the other player to use Battlechess and an Amiga--no intermachine compatibility exists. Other features include the option to take back moves in sequence, thus allowing one to undo a disastrous move, and the option of having the program suggest your next move at any given time.

However, the guys at Interplay missed some opportunities to make Battlechess an even better program than it now is. One thing they should have included was a printed listing of the moves in each game, with an option of dumping it to the printer. They could have easily included chess clocks to give one the same feeling of time pressure that tournaments create. Redefinable color values for the chess sets would given the game a personal ambiance. I may be perverted, but I really would have liked to see that slinky queen in widow's black or virginal white (The basic colors used in the game are lavender and blue.). For something called Battlechess, it would have been nice to have a "Fairy" chess version where the battle results were not predetermined and where the defender *could* win.

Lastly, while the individual combats are exquisite, there really should have been more variety. If each piece had four possible combat sequences versus every other piece, the game would retain its capacity to surprise the players much longer than it does now. Sure, it would take a lot more memory, but memory is cheap now. If Interplay ever does a port to another machine, I'd suggest that they call in a chess playing game designer and really pull out all the stops.

Quibbles aside, every chess player will want a copy of this program, and every Amiga owner owes it to him/herself to see Battlechess in action. Highly recommended. **CGW**

decide what you want to do, then, decide HOW!

Don't internalize marketing thinking. Do not allow the marketing department to intrude on creativity. Marketing is based on *yesterday*. It is similarity thinking and this is fundamentally opposed to creativity.

Live in the world of IDEAS. All new ideas come from relationships with other ideas. The best designers have enormous intellectual curiosity. Talk to different people and read *lots of books on different subjects*.

Develop respect for the psychology of the creative process. Here is where Crawford used the whip analogy. He noted the physics of how a whip works. A whip works on the wave principle where the larger mass is translated to smaller and smaller portions until it moves faster and faster and goes beyond the speed of sound and pops. In the human psyche, the tip of the whip represents the concrete, rational portion of the mind. Farther up the whip is the subconscious and the huge mass at the handle is the universal memory and unconscious archetypes. In keeping with the Jungian analogy, Crawford quoted Jung, "One of the basic aspects of man is the invention of good games."

Crawford's Creative Approach:

1. Identify the problem (How to portray the subject to be simulated in the program).

2. Communicate the problem through your entire mind:
  a) Say the words out loud
  b) See the problem
  c) Attempt to feel the problem tactilely
  d) Use the "killer step," Creative Agony to feel the problem emotionally. Then, rest - "sleep in the arms of the dragon."

Remember: "You cannot control this process. You are a puppet on a string." The answer will come some day. It does not work on a deadline, but publishers do. Therefore, schedule projects in such a way as to accomplish the creative work early on - the easy stuff at the end (i.e. Work on creative issues of project B while doing programming of project A).

Creativity is draining. It is not fun. It is hard work. Why? The pay-off (after the wounds have healed) is to say, "I have created a thing of beauty and truth. It's worth it. It really is."

As is typical of Chris' industry-famous speeches, this one was complex, hot, and deep.

"The finest and most enduring stories in other media succeed because they offer more than simple entertainment."



The coterie of conspirators behind the conference: (l to r) Jeff Johannigman, Chris Crawford, Dave Menconi, Brenda Laurel, Stephanie Barrett, Tim Brengle, and Stephen Friedman.

Interactive Stories

Three different sessions touched on issues regarding interactive stories. Brian Moriarty's (*Trinity*) session was entitled "Interactive Stories," Brian Fargo (*The Bard's Tale*) and Dave Albert (producer at **Electronic Arts**) emphasized fantasy role-playing in their session, and other panels focused on interactivity and artificial personality.

Moriarity began his session by asking the question, "How are stories used?" They are used, he suggested, to entertain, inform, persuade, and/or express feelings. *CGW*'s associate editor, Johnny Wilson, and David Feldman (*Shadowgate*) suggested that information and persuasion could also be combined to accomplish acculturation and value building.

Moriarity then emphasized that, "Entertainment is the *sine qua non* ("without which there is nothing") of stories." If designers don't entertain, they cannot hope to achieve any other purpose. "Most stories and games never aspire to be anything more than just entertainment."

He went on to present his **Thesis Point:** "The finest and most enduring stories in other media succeed because they offer more than simple entertainment."

Next, Moriarity asked where the author of interactive stories had advantages over other modes of entertainment. He suggested the advantage rested in replay value and involvement. "It is one thing," he contended, "to watch a movie and see someone else pull the trigger. It is quite another thing to pull the trigger yourself." He went on to argue that interactive stories offer a tremendous tool for persuasion.

Moriarity noted that the point of *Trinity* was inevitability. The point was that survival depends on doing unpleasant things. The designers noted that people resent being manipulated and if you manipulate them too much, they will lose them rather than persuade them. Moriarity suggested that this was what play balance is for. Cliff Johnson (*The Fool's Errand*) suggested that *Trinity* is not interactive. If you do the wrong thing, you come to an end. Moriarity insisted that it *is* interactive. It is possible to make wrong choices, but they are choices that the author wants the person to make. Moriarty observed that, in life, there is ultimate interactivity. People *always* have choices and are continually forced to make them.

He then presented the following

"Richter Scale of Interactivity" (from highest to lowest)

- FTF RPGs with human moderator
- Infocom adventures
- Menu-driven adventures (e.g. *Maniac Mansion*)
- Infocomics, Portal (fixed content with variable sequence and perspective)
- "What Next?" books
- Radio programs (require some imagination)
- Movies (least interactive - nothing to the imagination)

Moriarity went on to remark that in order for the reader/player to care, "The participant must be persuaded to make an emotional investment in the story." In order to accomplish this, the story needs plot, characterization, and *unity of purpose*.

The latter part of the discussion revolved around "Selling the Story to the Publisher." In order to do that, the designer must: 1) prove it is entertaining and 2) emphasize the familiar (usually with one sentence or easily expressable concept).

The conclusion of the discussion was a

plea to get away from the feature list and figure out what the point of the story is.

Brian Fargo (**Interplay**) and Dave Albert (**Electronic Arts**) presented a different focus concerning games which tell stories. Fargo promised, "No more 'kill the evil wizard at the end of the game' products." They suggested three new matters of focus: new themes, use of non-player characters, and storytelling art. New themes include western, science fiction, Japanese, and horror settings. With regard to NPCs, future games should learn about supporting characters from the movies. Both agreed that this doesn't have to be complicated. Finally, designers should learn from cinematic use of plot points, confrontation, and resolution (climax).

The audience responded to the discussion with suggested alternatives to combat in CRPGs, such as: mining, economics, and skill development. The designers also challenged each other to emphasize personality quirks in NPCs and to spend more time modelling human behavior.

Brenda Laurel (of **Apple**'s multi-media group) began a panel discussion on artificial personality with the assertion that, "We have not yet created interactive characters. We need to begin by studying dramatic characters. Drama is a short cut for understanding people because it embodies enough heuristics to help us understand ourselves." Good drama is based on rules about cause-effect and enables us to see clear good, evil, heroism, and emotion.

Laurel, known throughout the industry as a student of Aristotle, referenced the ancient philosopher/dramatist as to why drama works. It is entertaining, the ancient wise man theorized, because it visualizes relationship between cause and effect. In short, it is "universalized." Therefore, a play is not about *people*, it is about *actions*. Characters must have traits that presuppose how they will act. Laurel believes that the technology is already here for interactive characterization.

Nevertheless, she argued that today's interactive fictions depend more on appearance or description to indicate character than on characterization itself. Appearance is not what is most important in characterization. For example, Hamlet wears black, but so does Johnny Cash and Hamlet looks sad, but so does Pat Paulsen. That doesn't tell much about a character.

What constitutes decision-making in a given character? For some, it is a moral imperative—man and god (higher law). For others, it is an ethical imperative—man and man (social relations, politics, law and civilization) or expedient imperative—man and himself (simple means to the ends). With this in mind, she presented "Laurel's Laws for Creating Characters in Interactive Fiction." These are:

Traits must be actionable (lead to action)
Traits must be relational (have objects)
Traits must be dynamic (change on the basis of new knowledge and information). If these are utilized, the challenge is to create an action calculus:

1. generate event,
2. cause character to interpret the event and update his/her "awareness,"
3. enable character to plan his/her next actions, and
4. give character enough data to evaluate said actions.

In order to accomplish this, one can use mini-scenarios, a simple AI approach, or anything that enables characters to make their own choices. Once implemented, the day of the hard-wired plot is over!

David Graves (of **Hewlett-Packard**) stated that the main problem with the standard approach to artificial personality is that we currently treat actors as objects. "One cannot presently talk to characters," he protested, "because there is so little to talk about. We need a representation for emotions, knowledge and beliefs, as well as a rich media for communication."

"Bringing characterization to games will be the major issue in the mid-1990s."

Chris Crawford (*Trust & Betrayal: The Legacy of Siboot*) asserted that bringing characterization to games will be *the* major issue in the mid-1990s.He sees three problems to be overcome. The first is development of artificial personality (using algorithms). This can be readily solved. The second is that these characters must be able to talk to each other and that means designers will need bigger vocabulary (5,000 words or more), a system for syntax, and a capacity for context. The third problem is that audiences can't accept too rapid a rate of change.

Crawford posited that context is the major problem. However, since social situations create expectations, those situations can be used as delimiting walls to reduce the context to a manageable amount of data." To illustrate the latter point, Chris told about being in Germany and picking up enough German to use a few words. He got into a cab, answered the driver in German, and received a torrent in reply. Chris sheepishly asked for the driver to speak in English. He has suggested that the standard text parser is in the same boat. To avoid this, he has suggested that programmers use a "Creole language" (second generation language spoken by immigrants). For example, an Arthurian game might use a fake Old English.

Simulations

During a provocative panel on simulations, Gordon Walton of **Digital Illusions** (*PT-109*) observed that simulations are fun because they move quicker than real life, eliminate that which is not fun, and provide a visceral feel. Gilman Louie of **Sphere, Inc.** said that real pilots hate simulators. They "would rather be flying," as it were. Therefore, he believes that the challenge for simulation designers in the entertainment market is not only to create realistic simulations, but simulators that are *fun*. The challenge is to understand the feel, the excitement, and the thrill. It is to identify the five minutes of fun in hours of reality and emphasize those five minutes.

Many designers of simulations are concerned with the problem of their warmongering image. Walton asserted, "We don't develop our products to glorify war, but to help the general public understand the problems warriors face. We deliver *war*! We *teach* reality. You can win at the simple level, but at higher levels, you're going to die. We believe in being responsible."

Gilman Louie responded, "I got upset because I got a letter from a customer who said *Falcon* was too tough. He was angry because he kept getting killed and wasn't getting points. If anything, we glorify war by making games too easy. War is not pretty. We shoot our own men by mistake. Men fly knowing that only *some* are going to return. Part of the job with *Falcon* is to scare the hell out of people and let people know that people die!"

Noah Falstein (*Battlehawks 1942*) was more concerned about moral responsibility. He asked, "If we're doing our job right and we make the game fun enough, what happens when people like the game and decide to opt for the reality

(Continued on page 54)

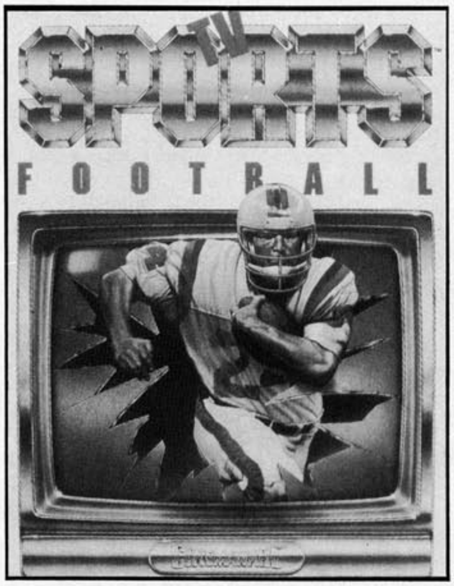
Red Dogs and Hot Dogs

Cinemaware Captures The Gridiron

by Wyatt Lee and J. D. Lambright

The theme song's running bass line suggests the tension of the upcoming clash between two football titans. The camera pans across the field of a packed stadium. A camera moves in for a close-up of the blazer-bedecked reporter behind the desk. The Cinemaware Football League is on the air!

From the opening shots described above through the detail of the coin toss, the spoof commercials (e.g. "In and Out Brake Centers: We hardly slow you down!"), the halftime show, and the animation of the teams themselves, *TV Sports: Football* offers an exceptional amount of atmosphere. True to the company's tradition of building showpiece games which capture a style from a particular genre of entertainment and developing a game around it, the first of a projected series of sports games blends sound, action, and color into a unique approach to football.



TITLE:	TV Sports: Football
SYSTEM:	Amiga, IBM
# PLAYERS:	1-2
PRICE:	$49.95
DESIGNER:	Larry Garner
PUBLISHER:	Cinemaware Westlake Village, CA

Pre-game Report

The realistic animation offers some of the flavor of watching football on television. Human players have the option of competing solo against the computer opponent, head-to-head against each other, or teaming up against the computer opponent. Sound effects are comparable to the impressive *Head Coach* and are enhanced by the lively musical score. The graphics and animation are exceptional. In addition, the "camera angle" with the player's oblique (from behind) top-down view offers a chance to see plays developing and exploit the opposition's weaknesses. It is a familiar enough view to make the player instantly comfortable and is less unsettling than the "inside-the-helmet" perspective with its lack of peripheral vision in *GFL Championship Football*. Also, the flow of play is more forgiving than either GFL or *4th & Inches* with their demands for precise patterns.

Play selection is less sophisticated than *NFL Challenge*, *Head Coach*, *Pro Football Simulator*, or *MSFL Pro Football*. Unless one is statistics-oriented, however, this may not be as limiting as it originally seems for two reasons. First, it is possible to extemporize plays by not handing off to the intended ball carrier, keeping the ball oneself, or passing unexpectedly. Second, it is possible to call a mirror image of the plays. After selecting the formation, one simply holds down the fire button when choosing a particular play and the pattern will be reversed.

League play is facilitated by a built-in statistics package that automatically updates the league after each game. The clipboard even keeps track of individual statistics for most positions. Unlike some earlier sports games where only one human player could play against a league of computer operated franchises, TV Sports: Football offers several human "owners" the chance of playing against each other *and* the computer operated teams in the league. This even adds additional color to the "telecast" of the game in that the scores of computer owned teams versus computer owned teams can be "broadcast" during games that involve human owned teams. That is the good news about league play. The bad news is that the teams are rated according to an arbitrary points system rather than actual NFL statistics. This approach will more than likely make "Draft Day" a rather controversial event in most multi-player leagues, since one cannot simply type in a verifiable statistic but must come to agreement on a subjective rating with regard to the player's Speed, Strength, Hands, and specific Ability for each position. These ratings, in turn, are added together to create a talent point total. Unfortunately, one cannot perform a complete edit on a team because each player's total talent points are already locked in. If a team's quarterback starts with 24 points (indicating he is the team's best player), one cannot change him to 23 points and make the halfback into the 24 point player. This also minimizes the importance of trading since one cannot edit substantially different players at a given position. One cannot give up an excellent linebacker to trade up from a mediocre to an excellent quarterback, for instance.

Scouting Report

Game play is entirely joystick-driven. This helps the pacing so that one does not have to keep looking up plays in a complex playbook. Players choose from four basic offense and four basic defensive formations, followed by four basic patterns. Active players (those controlled by the human player) are marked by a flashing cursor, but the other players on the team play "intelligently," as well. If the human player decides to go with a designed running play, he simply presses the fire button and the computer will execute the play as selected. If the human player wants to control the flow of play himself or definitely wants to throw a pass, he simply pulls back on the joystick

(Continued on page 49)

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Modem Wars

"A Game By Any Other Name"

By Daniel Hockman

The best way to understand what *Modem Wars* is, is to realize that its original title was "Sport of War". In many ways, this is a better title than Modem Wars. Why? Because Dan Bunten's new game distills many of the basic elements that make up war as well as sport. Competition, ability to develop strategy and tactics in real time, tension, and lack of information as to the opponent's intentions are all basic elements in both war and in sport (as well as in Modem Wars).

The basic units of "play" are similar as well. In warfare you have infantry, cavalry, artillery, leadership. In football, the sport that may come closest to emulating war, you have linemen, backs, quarterback, and coaches. In Modem Wars you have grunts, riders, boomers, a command center and spies.



So, why did EA decide to call the game Modem Wars? Simple, the title tells you a basic fact about this game: it is a wargame designed to be played *by* humans *via* modem. Most computer war games are historical simulations of famous battles or combat environments. They are most often played versus a computer opponent. Modem Wars has the option of a computer opponent, but as you will see below, the computer opponent is not what this game is about. This is a game for humans to compete with humans and the best way to do that is to have each player seated at his own terminal. Modem Wars was designed with this in mind.

TITLE:	Modem Wars
SYSTEMS:	C-64, IBM
# PLAYERS:	2
PRICE:	$34.95
DESIGNER:	Dan Bunten
PUBLISHER:	Electronic Arts San Mateo, CA

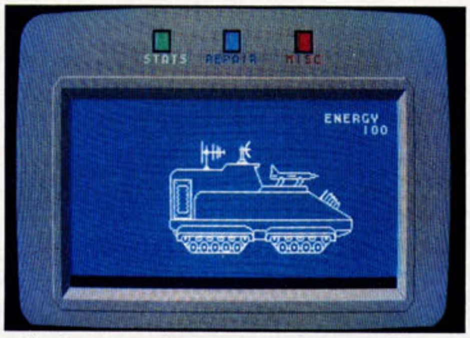
Calling the Play (Game Elements)

In Modem Wars you are the quarterback or general of an army of mechanized warrior robots. From inside your Command Center (comcen) you control the actions of your units which are organized into battle groups. Terrain varies with each battle. Plains, streams, forests, slopes, and plateaus all play a role in your planning. Although the terrain varies from battle to battle, the basic playfield remains constant. Forces set up on opposite sides of the center line.

There are two back lines, one in each player's territory. Crossing the center line adds points to your score, as does crossing the opponent's back line. You play the game as a wargame, but you accumulate points as if it were a sports game.

You win by either knocking out the opponent's comcen or by outscoring your opponent. In addition to getting points for crossing the center and back lines, you gain points by damaging the enemy comcen. After you master the basic elements of game play you, and your friends, will move on to develop personalized strategies to maximize scores. Modem Wars is more like Chess or Stratego or any of the computer sports games than it is a wargame (which often have a low level of repeat play interest). You will play a lot of games, and will begin to keep records of scores. Perhaps you will even set up a league. Modem War interest groups are already in operation on Quantum Link and getting started on other systems such as Compuserve.

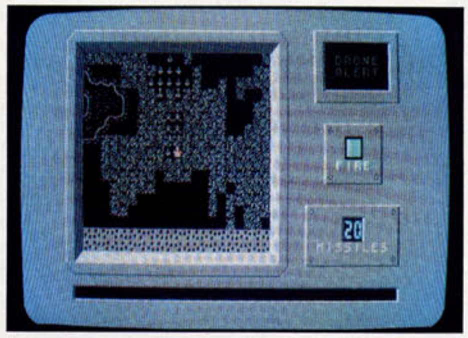
Note: There is an error in the documention in regards to the scoring system. According to the rulebook, the points you receive when you win "by terrain points" equals "the number of terrain points earned divided by two and added to 300". In reality, the number of points you receive in a win "by points" is "the difference between the scores (as they appear on the screen) at the end of the battle divided by two and added to 300, but not higher than 450".



The Comcen as it appears on the Repair Screen.



Your initial set-up in the "Full War."



The radar screen showing forces in the vicinity of your Comcen.

Special Teams (Features)

Beyond land combat, there is an air game. In most scenarios, the comcen is armed with missiles and drones. The drones are primarily used as offensive firepower against the enemy comcen (although they can be used to bomb enemy troop concentrations). Missiles are primarily used as defensive weapons against drone attacks and, to a lessor degree, against land units within missile range of the comcen.

There are seven scenarios. "Scrimmage" is a learning scenario. "QB Sneak" features a small mobile offense versus a larger but slower defensive force. "The Bomb" is a training ground for air combat where each side has only a comcen with drones and missiles. "Face-Off" features 14 speedy riders per side (a lightning warfare scenario). "Sluggers" is a heavy artillery (boomers) slugfest. The two big scenarios are "Full War" and "Defender". "Full War" is just what it says. All unit types and game features are available to you in fighting an equally well-armed opponent. "Defender" is similar to "Full War" except that the attacker has more drones and a movable comcen and the defender has more missiles and an immovable comcen.

In "Full War" and "Defender," you have available a list of advanced commands such as cloaking, digging in, blitzing, changing formations, and setting individual targets for your artillery (normally units select their own targets).

Training Camp (The Solo Trainer)

The solo trainer is just that: a trainer, not an opponent. Do not buy this game if you only plan to play against the computer. Playing against the solo trainer is a frustrating experience. The solo trainer is predictable, but deadly. In "Full War," the trainer opponent will mass most of his units into one huge force which will march relentlessly towards your back line. This can be countered by well-placed dug-in groups just on your side of the river. However, the solo trainer is deadly with his drones and missiles. You will rarely get a drone hit on his comcen (at least I couldn't), but he will rarely miss yours. He rarely misses with his missiles, you will rarely hit his drone with your missiles.

Modemless Wars

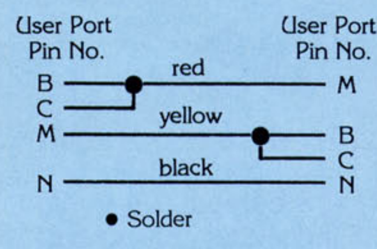
by Tom Cleaver

Dan Bunten's *Modem Wars* allows you to humiliate an opponent across the miles. The miracle of the modem makes this possible, but suppose you want to destroy an opponent across the table? Is there any way you can play *Modem Wars* in person? You bet there is! In fact, there are two ways. Two Commodore-64s can be wired together if each of them has a modem. Instead of connecting your modem to a phone, just connect it to the other modem. This is commonly known as a "null modem." If the two modems are not identical, they may be incompatible and this technique may fail.

If you do not have a modem, you can still play *Modem Wars* by connecting two C-64s together via the User Ports in the back. This is done with a "null modem cable" which simply connects User Port to User Port. So far as I know, a C-64 null modem cable is not available commercially, but it's easy to make.

Simply go to an electronic parts store and ask for 12 feet of telephone cable and two 24-pin card edge connectors (12 pins on each side). The telephone cable is the standard kind with four conductors—black, yellow, green, and red. The card edge connectors have 12 "pins" on the top labeled "1" through "12" and 12 on the bottom labeled "A" through "N" with letters "I" and "G" omitted. The cost should be about $10.

Now, wire the two connectors together using the phone cable as shown below. This will require a soldering iron.



Since it is possible to plug the connectors in upside down, mark "Top" on the appropriate side of each one.

When you initialize your "Play Disks" for *Modem Wars*, use these parameters:
Type of modem:Hayes & RS232
Carrier:Force On
DTR Logic:Normal.

Give your phone a rest, get wired, and enjoy!

Those drone hits on the comcen are deadly. When stunned your comcen loses its vision for a time. That's when the solo trainer gets in his most devastating blows.

When playing a human opponent things are much more evenly matched, and if not, you can handicap the better player.

A League of Warriors

One of the nicest features of Modem Wars is the game film utility. After a battle you can replay the "game film" which plays back the battle in high speed. You can save those game films for study, sharing, etc. By the time you read this review Dan will have uploaded to Quantumlink and Compuserve a utility called the "Modem War Game Film Utility" which will allow you to upload your game films to BBSs. The program will also allow you to calculate your "batting average", and contains documentation on how to write special utilities to analyze battles. Look in the EA area of QuantumLink. At press time it was not determined where the program would be located on Compuserve. You might drop into the Gamer's Forum and look there.

Can You Cut It?

Dan would like us to believe that Modem Wars is "a wargame for the rest of us". That is, Modem Wars is a fast moving game that does not get bogged down in the minutia of detail so often associated with wargames. Dan feels that Modem Wars is for those gamers who want to "play war" but are turned off by the detailed rules of the typical wargame.

Has he succeeded? Well, yes, sort of. There is no question that Modem Wars distills the essence of warfare into basic elements that can be quickly learned. There is no question that Modem Wars plays fast and is exciting. The problem is that its strength (real time play) might also be a marketing weakness. A sizable number of gamers are not used to combining complex strategic thinking with real time situations. They can spend hours ordering tens of thousands of men into mortal combat, but they wimp out when they have to think under fire. They want to play chess instead of speed chess. They want to analyze instead of act. As the enemy drones zero in on their comcen, they throw up their hands in frustration when knocked out before they can extract themselves from the maelstrom of fire that has engulfed them. Hey! War is Hell! You will learn this when you play Modem Wars. Some of you will not like it, but for "real" gamers, those of us that don't eat quiche, Modem Wars is swell!

The Editor Versus The Designer

A Battle For Bragging Rights

In September 1988, Electronic Arts brought together two of computer gaming's "heavyweights": CGW Editor Russell Sipe and Award Winning Designer Dan Bunten. The occasion was a pre-release Modem Wars match. On the one side, there was Sipe who, over the course of eight years, has probably seen more computer games than anyone in the hobby. His advisors were Dave Maynard (product manager for Modem Wars) and CGW Associate Editor Johnny Wilson. On the other side, there was Bunten who designed Modem Wars.

The first battle was a toss-up until the 3/4 way point when a group of Bunten's riders found Sipe's drone-stricken comcen crossing the river. With zealous glee, Bunten pummeled Sipe into oblivion. Using the communication feature of Modem Wars, Dan took multiple opportunities to gloat on his way to victory: "I'll teach you now! Here's for that bad review you gave me a couple years ago!" In the second battle, Sipe was secretly given additional drones as a handicap. Bunten screamed bloody murder when the additional drones were unleashed. As the drones did their dirty work, Sipe typed a message "You think that review two years ago was rough, wait 'til you see what happens if I lose this battle!" Now, we are sure that Dan knew we were kidding, but it was shortly after this that two of Sipe's groups found Dan's comcen skulking through a forest. What happened next wasn't a pretty sight. Score: Dan-1 Russ-1. Electronic Arts media relations director Dave Dempsey then suggested that the match be ended in a 1-1 tie. Good move Dave!



Caption 1: Dan cheers as the knockout blow hits in battle one.



Caption 2: Wilson (left) tells a stunned Sipe "I told you not to try to cross the river with your comcen!"



Caption 3: The smile is wiped off Dan's face as he concentrates on the enemy drones in battle two.



Caption 4: Maynard (left) and Sipe enjoy a film replay of battle two.

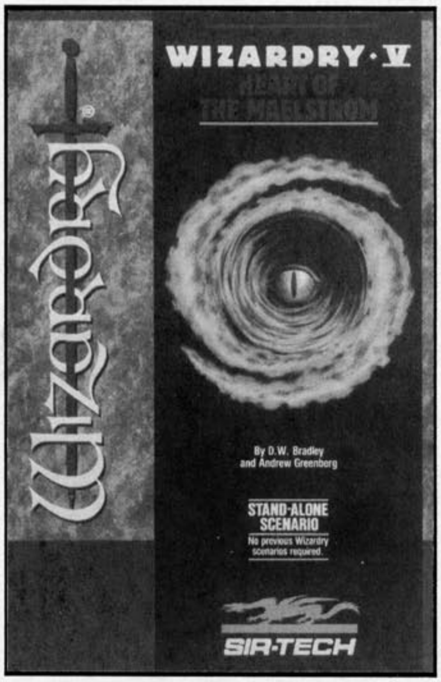
Photos by Frank Wing

Descent Into The Maelstrom

Sir-Tech's "Wizardry V: Heart of the Maelstrom"

by Dennis Owens

Designed in the tradition of the classic first three scenarios of *Wizardry*, *Wizardry V: Heart of the Maelstrom* offers a mystifying, satisfying romp through the temple of La-La, the caverns beneath it, and, finally, into the abyss itself in search of the aged Gatekeeper who guards our plane of existence from the forces that swirl amid chaos.



TITLE:	Wizardry V: Heart of the Maelstrom
SYSTEMS:	Apple II, IBM
# PLAYERS:	1
PRICE:	$49.95
DESIGNERS:	D. W. Bradley and Andrew Greenberg
PUBLISHER:	Sir-Tech Ogdensburg, NY

A return to the format of six adventurers questing through the darkest, dampest reaches of a cavern in search of world-salvation and monsters to whomp, *Heart of the Maelstrom* is, at once, both more simple than *Return of Werdna* and improved over the first three scenarios.

The game boasts a stronger storyline than most of its predecessors (*Wizardry IV: Return of Werdna* being the exception), larger game maps, and enough other changes to its set of magic spells and method of play to offset its still basic (after all these years) graphics display.

There are, now, characters to talk to in the dungeons, pools to swim in, door locks to pick, monsters to summon, and enough treasure and magical artifacts to stock a well-supplied retirement castle for many decades to come.

The NPCs (non-player characters) are unmistakable. They "approach" rather than simply appear and "wait" prior to attacking or being attacked. You can talk with them, fight them, barter with them (either to buy or to sell some item), give them items or gold, "Katu" them (to make them like you), steal from them, or simply leave them, but fighting or killing one of these NPCs (or stealing from them) could seriously affect your characters' alignments and hamper your progress through the game. This writer wound up having to have warriors and mages leave the party on several occasions as a result of such activities.

Most of the NPCs *can* be brought back to life at the Temple of Cant, but they do not take kindly either to being killed or to catching you trying to steal from them. It is only through these NPCs that you can glean enough information to figure out how to rescue the Gatekeeper from the "unnatural, magical vortex" that has formed beneath the temple. So, either be nimble or honest.

Many smaller quests must be resolved before you get to the biggie, though, but none of the quests are extremely puzzling. They all involve finding one item and using it somewhere else or finding out information and asking some NPC about it. Any item which seems, at least, relatively odd or almost any item which *Boltac's* won't buy should be held onto.

Wizardry V: Heart of the Maelstrom comes on five double-sided disks (of which, only nine sides are used) and contains eight levels of dungeon. The maps no longer fit neatly inside 20x20 grids. Instead, the dungeons twist and turn, much more like natural caverns. Also, there are no longer wrap-around dungeons in the *Wizardry* universe. When characters start to walk west in this game, they *really* walk west. The only way back is to walk to the east.

Such a significant change in Wizardry's mapping design is especially curious at a time when many maze games are trying to *de-emphasize* paper and pencil mapping. The game is difficult to map (at least without erasing, cursing, and using lots of graph paper) because, upon entering a new level, there is no way to tell which way the dungeon will stretch out and whether it may branch away in a number of directions or not. You must also pay attention to whether you are north, south, east, or west of the exit up to the castle. Otherwise, a "Dumapic" spell will only confuse you.

Also, there are pools in the caverns and your characters have swim ratings which can only be improved by swimming. Some waters in the pools help, some hurt, and some hide neat things that you can get if you reach bottom. You have to be careful, though, not to swim much deeper than your character can handle. Should you dive more than one level beneath your ability, for example, you might not be able to make it back to the surface.

It Must Be Magic

The spell system has been slightly revamped. You still learn spells only by advancing and returning to the Inn, but there are now 63 to learn rather than the earlier 50. Gone are old standbys like "Matu" and those spells that were never really useful or were semi-redundant (like "Manifo," "Lorto," or "Badialma"). Now, some spells have been enhanced and used to replace older spells, but some seem to have only had their names changed. Others, like "Litofeit" (which allows the entire party to levitate a few inches above the ground, avoiding those hard-to-spot pits) are new and nifty.

Especially helpful new spells are those which allow both mages and priests to summon and banish creatures to and from the elemental planes. While those summoned will only stick around long enough to take the brunt of whatever groups of nasties are attacking you, they can still save a seriously weakened party just when you need it most. The overall sense is that, despite the increase in the number of spells, the magic system has been tightened and improved.

Unrefined Observations

Not all refinements in the game play have made the game smoother. Hidden doors are now only visible if you specifically search and/or cast a "Calific" (reveal door) spell. The old system, where "Lomilwa" revealed secret doors, was much more efficient and did not slow down game play nearly as much.

Another problem is that the game sometimes is slow because the game requires so much disk access. An emerging problem in the *Wizardry* series (first evidenced in *Return of Werdna* is that

the increase in the number of disk sides and game size seems to have overwhelmed the 8 bit machine's ability to access the information needed for game play.

In spite of the requirement that the entire game must be loaded before you can play it and the fact that such a lengthy boot-up is supposed to enhance game play, the game continues to access the disk for every message, battle, discovery of treasure, special item, etc. Very little can happen in this game without disk access. It slows the game down tremendously and there does not really seem to be a reason for it. After all, the dungeon graphics are still the old, familiar, functional style. Even though the package states that only one disk drive is required, the game accesses the disk so much that it is even a slow process with two disk drives.

Personally, the sections in the manual beginning with questions asking how you are doing, whether you are still there or not, and if you understand the discussion, struck this writer as condescending. One wonders if they are really necessary. *[Ed.: These summary sections only add up to a total of one and a half pages out of 86.]*

A lot of the refinements, though, are welcome. The "Litofeit" (levitate) spell, the ability (as in Werdna) to save in the dungeon, and the introduction of ranged weapons, all make the game easier, decrease distractions, and make it more user-friendly. The quit/quick-save option, for instance, enables you to save your location just before doing something you think you might regret. You can now leave a party in the dungeon, return to the castle, and start a new party if you desire. Several parties can be left in the maze at the same time, so you can even launch rescue missions and only pick up the characters you want from the old party.

Be sure, though, not to quit and leave the game while your party is in a hard-to-reach place. The quit option resets the level, so a party behind a magical door or somewhere inside the jigsaw bank may have to wait a while before you can equip and prepare a rescue party to go and recover them.

It is no longer necessary to keep going back to the castle, unless you just want to learn new spells or sell off all your loot. Pools of water located here and there will keep characters stocked up on magic and health points.

In addition, experience points build up fairly quickly and characters can transfer into the game, but only from earlier *Wizardry* scenarios.

Note that in the first versions of the game released to the public, certain sets of monsters (located on level four) will freeze the game when a battle is initiated. They are easily recognizable, because they either have nothing listed where their descriptions should be or they fill the description box with colorful computerese gobbledygook. Whenever you contact one of those sets of monsters, simply run away. My party always succeeded at running at those times. If you do not run, you will have to reboot as soon as one of those monsters either attacks or is attacked. If you have not saved the game recently, you will find yourself very sorry, indeed. *[Ed.: According to Andrew Greenberg, the program only does this when a disk swap has occurred which the program did not initiate. The problems are easily repaired, however, by making another back-up disk straight from the master disk and transferring the characters in the party to the new disk. Apple users with two disk drives and extended memory should make certain that they load the game from only one disk drive.]*

This game is a must for any adventure gamer's computer-game library.

CGW

Abstracts From The Journal of Computer Game Design

Chris Crawford is one of many "cutting edge" designers who is excited about the dawn of a growing artistic community among game developers. As editor of The Journal of Computer Game Design and member of the organizing committee for the Computer Game Developers' Conference, he has contributed significantly to an increasingly insightful colloquium concerning the present state of and future directions for computer game design. JCGD is published six times per year and costs $30 per year (The Journal of Computer Game Design, 5251 Sierra Rd., San Jose, CA 95132). Back issues are available at $5.00 each. In this issue of Computer Gaming World, we will be abstracting from issues 1.6, 1.7, 2.1, and 2.2.

Real Life In A Box

by Gordon Walton, John Polasek, and Karen Hunter (*GATO* and *PT-109*)

In the first two installments of a three part series, the crew from **Digital Illusions** discussed both design goals and the steps their development group takes in implementing a vehicle simulator. The group divides design goals into experiential goals (the "look and feel" which they want to impart to the player) and interface goals (primarily the game controls). Using a World War II submarine simulator as an example, the experiential goal is to " . . . create an effect which is reminiscent of the terror of being depth charged, the thrill of a great torpedo shot, or the cleverness of a night attack, . . ." Their operative principle is that " . . . the player's perception is more important to the design than actual reality. True verisimilitude is desirable but secondary to perceived verisimilitude." The team's primary interface goal is to insure the most intuitive control mechanism possible for a given computer system and a consistent use of keys/commands throughout the program.

The steps used by Digital Illusions in implementing these goals for a particular vehicle simulator are:
1) Choose the Topic and Context; 2) Define the Geography; 3) Implement the Map view(s); 4) Create a Simulation for all Vehicle Movement; 5) Implement the 3-Dimensional View; 6) Create all Mission Scenarios; 7) Create all Enemy Intelligence; 8) Playtest; and 9) Finish & Ship It.

As an example, the group chose a Los Angeles class nuclear attack submarine for a topic and North Atlantic operations in 1989 as the context. They defined the geography by asking two questions: "What is the maximum area we can represent?" (i.e. how far the vehicle can travel based on constraints of fuel, time, and natural barriers) and "What is the minimum area we can represent?" (i.e. keeping the model to a manageable size). In the sample design, the group reduced the size of the "playing field" to the North Atlantic from 75° N to 30° N and 82° W to 13° E (circa 10,500 kilometers wide by 9,000 kilometers wide). In the game setup, the player will be ordered to patrol the mapped area. If the player tries to leave, he will be "relieved" of his command.

Then, the group determined the basic unit of measure for implementing the map view(s). The minimum unit of measure is related to the minimum time rate and minimum speed of travel. So, if the minimum time rate is two seconds, each game cycle must represent, at least, two seconds. Then, assuming a minimum speed of two knots, the basic units will be approximately 5.87 feet in size so that all movement can be recorded, as calculated by 6017.2 ft/3600 seconds x 2 seconds x 2 knots = 6.69 feet).

Next, the team determined the given square area to be determined by each pixel or byte. For example, each pixel or byte might be 16,384 times the minimum unit so that (6.69 * 16,384 = 109,608.96 feet (or 33,725.83 meters)). Next, the team established that it needed 312 pixels (10,500 kilometers/33.72583 kilometers = 311.33) to depict the width of the map and 267 pixels (9,000 km./33.72583 km. = 266.85) to depict the height of the map. This made the bitmap 83,304 pixels. Since each byte of memory can contain 8 pixels, it took about 11K of memory simply to record a two-dimensional map. In *JCGD* 2.2, the second article in the series provided specific examples of code to demonstrate how to move the vehicle about the two-dimensional map just described.

Computer Game Design - The Write Stuff

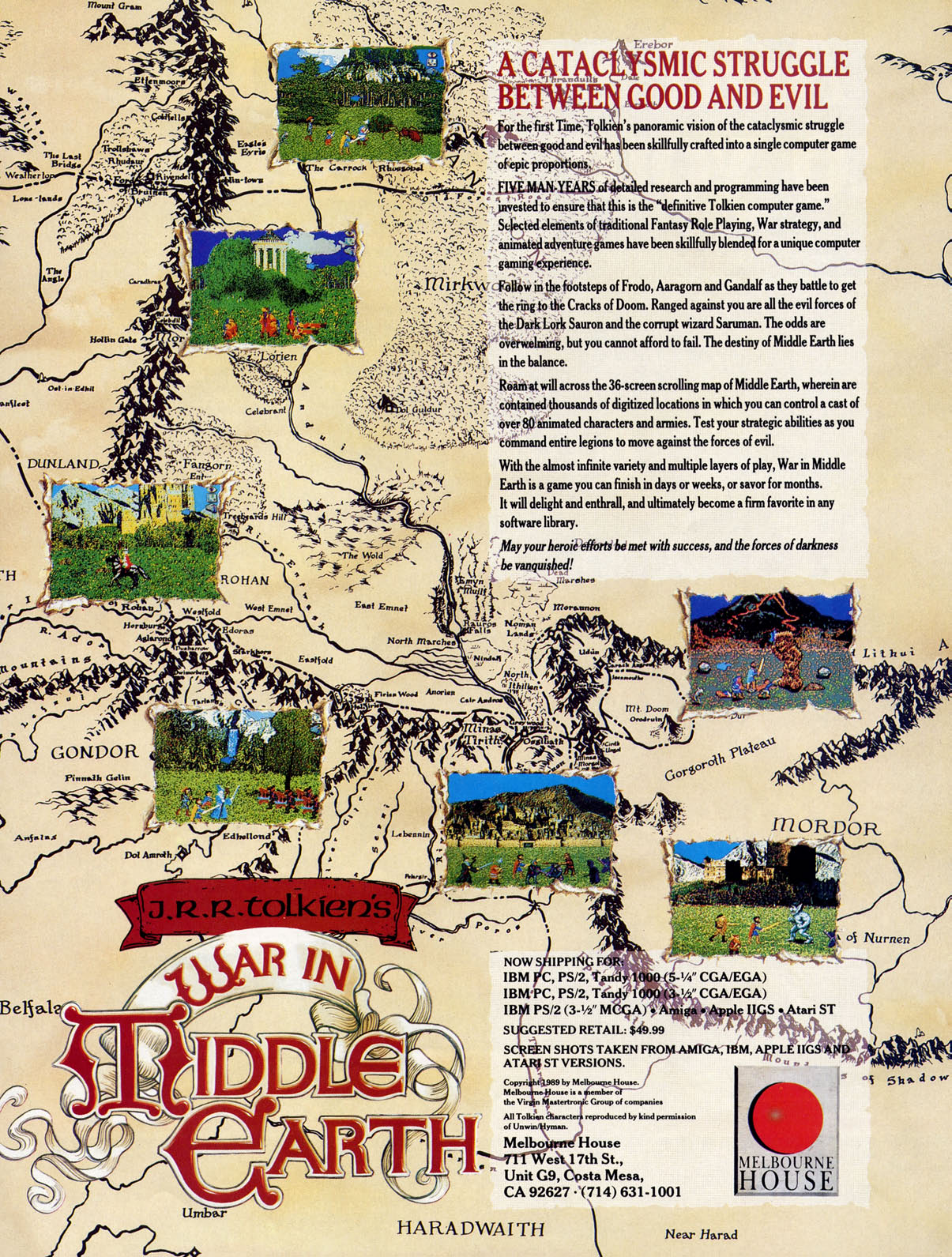
by David Mullich
(*The Prisoner* and *Wilderness*)

David opened his article by quoting a motion picture studio executive who had recently stated, "Computer game designers are a much brighter bunch than screenplay writers. Unfortunately, most of you computer people don't know the first thing about composing a story." David used this remark to challenge his readers to consider " . . . how the principles of writing can be applied to computer game design, making it as valid a medium for storytelling as is film, theater, or even literature."

He stated that the focal point of any creative work is the concept. He defined story concepts as composed of three parts: character, action and conflict. Without a main character that makes decisions based upon his dramatic need (or motivation) and a capacity for that character to grow, the story is unlikely to be either interesting or rewarding. Without action, those activities whether physical or mental, that enable the main character to achieve his goal, the story is lifeless. "Story *is* action" he emphasized. Finally, Mullich reminded his readers that "Conflict is the basis for all drama in all mediums. In high school English, you've probably heard conflict categorized as Man vs. Man, Man vs. Society, Man vs. Nature, Man vs. God, Man vs. Himself, etc." Without conflict, there is no satisfying resolution to either story or game.

Mullich's final point was that too many games are poorly constructed from a dramatic standpoint and degenerate into an empty series of confrontations. He challenged designers to utilize a plot with a beginning, a middle, and an end. "The beginning presents the story's premise, introduces the main character and initiates

(Continued on page 41)



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(Continued from page 38)

Abstracts from the Journal of Computer Game Design

the action." It is the story's "set-up." In the course of the article, he suggested that too many games leave the set-up to the documentation or, worse yet, one screen at the beginning of the game. Next, he spoke about the middle story segment—the confrontation. He stated that game designers seem to be doing a great job in terms of providing confrontation.

The final portion of a game/story is the end—resolution. "Few games," he noted, "have made any progress toward expanding the game's ending, the Resolution, beyond a single screen display announcing the results of the final conflict. This may be due to the binary thinking of game designers, for most games have only two possible outcomes. Either the player accomplishes his goal (destroyed Werdna, found the Holy Grail, beat the High Score) or he dies." He went on to suggest that designers should create non-binary outcomes. "Perhaps the player has lost the battle but not the war. Perhaps there is an even greater evil behind Morgoth. Perhaps the South will rise again." He concluded his article by voicing the desire that designers could come up with some "novel" approaches to game design by looking through the eyes of a writer.

Bringing Characters to Life

by David Graves
(**Hewlett-Packard** engineer)

In *JCGD* 2.2, David Graves followed up on his comments in the second issue of JCGD (and abstracted in *Computer Game Forum*—Winter 1987, p. 23). In that first article, he talked about making characters more realistic by resolving lower level logistic problems. In the most recent article, he emphasized the need for characters to have motivation. He observed that, "No organism's behavior is ever unmotivated. Thus, in order for characters to display behaviors that appear reasonable and believable, they must have their own motivations. These motivations help stimulate the generation of plot."

Recognizing the difficulty in developing expert systems to accomplish this, Graves noted that he and partner, Tim Brengle, have been experimenting with code fragments called "affectors." These fragments are attached to various locations, objects, or actors to influence an actor's behavior by giving him additional goals or modifying his emotional state. Using this approach, he observed, each character's emotional state or current goals could drive behavior from a larger set of possible behaviors. Hence, one could get closer to character driven plots and actions without having to solve some of the most difficult A.I. problems.

Another major benefit of this approach, he noted, was that the interaction with these characters would be richer because they would now have something to talk about (as opposed to most characters in current games). "In worlds containing only objects, the only topic of discourse is the 'object economy' (physical objects that may be manipulated). In order to produce interaction on more human terms, a system must have (1) a rich representation for emotions, knowledge, and beliefs (an 'emotion economy' and an 'information economy' . . .); (2) a rich set of behaviors that are driven by these new economies; and (3) a rich grammar for communication of knowledge, events, beliefs, and emotions." To accomplish this, a new type of knowledge database will have to be constructed which will ". . . contain both static initial data (the state of the world's knowledge before the start of the game), and dynamic data on events or information flow as the game proceeds. Each character should have pointers into this database to reflect the state of his own knowledge and beliefs." Graves even noted that the database could be somewhat inconsistent, since it is realistic to presume that some characters in a given world would hold beliefs that contradict the knowledge and/or beliefs of other characters in that world.

Interface Sophistication, not Process Intensity

by Greg Costikyan
(a pen and paper game designer who goes way back)

In JCGD 1.6, Greg submitted a short rebuttal to Chris Crawford's "Process Intensity" article (abstracted in CGW #47, p. 51). In responding to Chris' contention that an intense number of mathematical calculations (high crunch per bit) was important to a successful game, Costikyan argued that the calculations are not important if the player does not realize what is going on. He offered an insightful example:

"Suppose that we have a computer wargame, in which weather is an important variable, but the interface never makes this fact clear. On turn one, units can move from Brussels to Le Havre. On turn ten, they can't—because it's raining. The player doesn't know it's raining and is disgusted and puzzled when he can't make the same move he made before." He went on to point out that in a pen and paper game, where the players drive the system, this problem cannot occur because the players have to read the rules and apply the movement modifiers. However, any number of systems can be impenetrable to players if the interface does not communicate successfully. "In other words," he concluded, "the game should only process information to which the player has access."

What is a Computer?

by Chris Crawford

Chris began his discourse with a conventional engineering definition of "computer" that did not really accomplish anything. Then, he indicated that the reason that the engineering definition fails is because, " . . . the computer is first and foremost a tool, not an object. . . . defined not by what it *is* but by what it *does*."

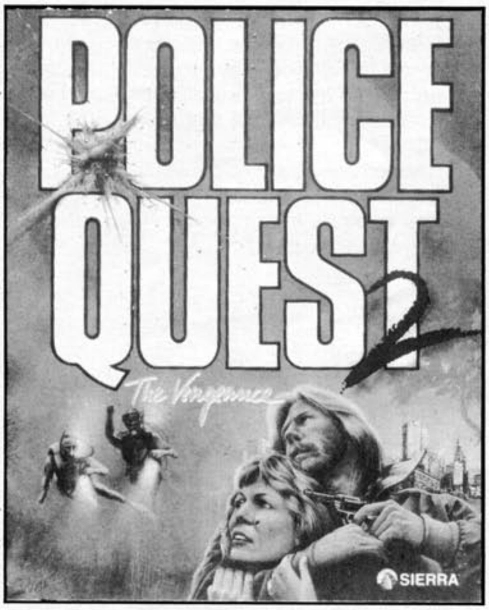
From there, Crawford offered examples of successful personal computer products and pointed out the primary element in the success for each one: *interactivity*. He noted that spreadsheet users *play* with the numbers, word processor users *play* with the words, and BASIC users *play* with the programs. "Play," he contended, "and interaction are closely couple concepts. Rich, deep interaction is indistinguishable from play." He concluded that play comes closer to the essence of personal computing than any other experience. Because the total flow of information—volume times speed—remains higher for games than for other applications, Crawford suggests that games offer more interaction than any other software product. **CGW**

Curse of the Fallen Angel

Sierra's "Police Quest II: The Vengeance"

by Michael Chaut

One year has passed since Officer Sonny Bonds brought Jessie Bains (the Death Angel) to justice for his crimes. The world of drugs and violence has been silenced and the city of Lytton is once again peaceful and serene. In *Police Quest II*, the latest edition to **Sierra**'s "Quest" series and sequel to *Police Quest*, the story begins with Officer Bonds promoted to the position of Homicide Detective. All is calm until Bonds learns of the upcoming retrial and ultimate escape of the Death Angel. (Bains apparently appealed on a technicality and was granted another trial.)



TITLE:	Police Quest II: The Vengeance
SYSTEMS:	IBM (Amiga, Apple IIGS, Apple IIe/c, ST, and Macintosh versions projected)
# PLAYERS:	1
PRICE:	$49.95
DESIGNER:	Jim Walls
PUBLISHER:	Sierra Coarsegold, CA

What's New On The Beat?

Once the credits start, the viewer realizes that the graphics are getting better all the time. Through use of their new SCI (Sierra Creative Interpreter), Sierra has doubled the graphic resolution capabilities of their previous release. They are now able to add cinematographic touches such as zoom shots, split screens and film wipes. The characters are no longer virtual stick figures, but have realistic form and shape. The opening sequence provides the player with an animated montage which includes both a police diver and a chase scene. Combining the graphics, animation and the unbelievable music sound track (provided by the MIDI Processing Unit and Roland MT-32), this reviewer felt as though he was watching the TV Movie of the Week.

The game starts with Sonny arriving to work in the Lytton Police Station. After parking, one should give the car a "once-over." As in all Sierra games, it is important to take, look, and/or read *everything* that can be seen (in some cases, things that are *not* immediately visible). Once inside the station, it is time for a little exploration. The area should be canvassed to find out where things are; Sonny should check-in at the homicide office; and locate his desk, check messages, and gain computer access. Before leaving the station, players will need to make sure Sonny has his keys, picks up his gear, visits the firing range, and most importantly, finds and takes his field kit. By this time, it should have become apparent that Sonny's mission is to recapture Bains before the murderer can fulfil his death threat made at the conclusion of Police Quest I.

In order to win the game, players will experience the daily ordeals of a homicide detective (i.e. fingerprinting crime scenes, questioning witnesses, booking evidence, etc.). One must not only capture Bains, but must do it "by the book," building your case as you go. When he is caught this time, he needs to be put away for good!

The game forces players to vicariously face life-threatening situations where split second timing and decisions make a difference between life or death. Players learn about working hand-in-hand with other branches of police work such as the underwater investigation squad, coroners's office, and S.W.A.T. Team. Above and beyond all else, one must *always* follow proper police procedures in order to succeed in this game. When in doubt about procedure, it is helpful to refer to the *Homicide Officer's Guide* which is included with the documentation.

Sierra has made some major strides in technology across their product line. First, this game supports a mouse and three (3) different music cards (the Roland MT-32, the AdLib & the IBM). This reviewer used the Roland Multi Timbre Sound Module (MT-32), a 32-voice synthesizer for the IBM which is comprised of eight individual synthesizers and a percussion sound module. Included with the MT-32 is the MIDI Processing Unit that provides the interface between the MT-32 and the computer. Mark Seibert's first venture utilizing this new technology offers a musical score that is simply spectacular. It actually changes rhythms and themes as one moves from one scene to another. So, when Sonny is in a scary and dangerous scene, one hears foreboding music and when Sonny is reunited with his girlfriend, one hears happy music. Although it is expensive, the Roland MT-32 seems well worth the expense. Having used the MT-32, it is hard to go back to games without music card support.

Second, the command interface has also been changed. The player no longer sees a command line and cursor at the bottom of the screen. Now, to interact with the game, one simply begins typing and a Message Input Window appears. In addition, the "F3" (for the MS-Dos version) "retype" or "echo" key only works for the current command sequence, speeding up the game. Those who enjoyed the earlier game will be pleased to note that Sierra has kept the handy "action keys." Also, the difficult and tricky manual driving sequences have been eliminated. Once Sonny is in the car, one simply types in the location where he needs to go and the game does the rest.

Avoiding Internal Affairs

Warning: This section of the review contains specific hints. Players should make certain they read the *Lytton Police Department Homicide Officer's Guide* included in the documentation. It is a major source for clues. One *must* know and utilize proper radio codes, vehicle codes, and penal code citations, as well as correct police operating procedures for running an investigation, in order to win.

Further, the player should save the game regularly as Sonny moves from situation to situation. Since Sierra now

conveniently provides the player with the ability to save twenty (20) different game positions within a directory, this provides the player with an easy method to backtrack.

It is important to visit the shooting range and adjust Sonny's gun sights. This assures that when his gun is fired, it will find its mark. When you are at a crime scene make sure everything is dusted for fingerprints. Everything in your field kit should be used. It is there for a reason.

If someone offers an item to Officer Bonds or he finds something that appears meaningless, have him hold onto it. In actual police investigative work, one never knows when something that seems to be insignificant will turn out to be the key to solving a crime. When arresting felony suspects, make sure Sonny calls for a back-up, has his weapon drawn, identifies himself as a police officer, etc. He should be certain to question all witnesses. When reluctant witnesses are encountered, they should be questioned again.

Don't allow Sonny to overlook using other branches within the force, the computer, and the telephone to help with the investigation. It is even possible to dial "411" for directory assistance during the course of the game. Make sure that Sonny pays close attention to the instructions given by fellow officers and superiors. It may even help to write down their instructions. Remember always how important it is to stay in touch with your partner, he is your lifeline.

Players should look for clues on the screen. If an object on the screen cannot be identified, it is time to investigate. In order to win this game with all possible points, players will have to really do some old fashioned police work. One can win without getting the maximum number of points, though.

Press Conference

It is obvious that in this game as in its predecessor, Jim Walls' "on the job" experiences add to the element of realism and danger that are evident throughout the game. In fact, Walls confirmed in an interview with this reviewer that all of the situations in this game actually did happen to him or a friend. For example, the sequence with the diver actually occurred and the real Jessie Bains (his name was changed) did escape (and is still on the loose).

Police Quest II is basically linear in nature. In order to win, players have to accomplish one task after another. However, the designer has given us many more puzzles and pitfalls than in his earlier outing. In any case, this reviewer is convinced that Police Quest II: The Vengeance is going to be hard to beat! The advanced graphics, intriguing story, and flowing animation make this story come alive. The whole package leads us toward a new apex in interactive game fiction!.

Once again: Remember to *"Be careful out there!"* **CGW**

Letters

(Continued from page 7)



Inflated Deutsche Marks

In the November, 1988 issue of your magazine, you review the air combat simulator, *Battlehawks 1942*. You preface your remarks with a few notes about air combat board games and air combat in general and you are indeed correct in asserting that in air combat (real *or* simulated), "Altitude is life." But you err when you state that the credit policy for German air-to-air kills was more lenient than that of the Allies, which implies either that German victory totals are inflated or that Allied victory rosters are more creditable or both.

Most air war historians consider that Germans (and the Finns) kept the most accurate records of air-to-air kills and had the most stringent requirements for being credited with an air-to-air victory. German policy was *not* to accept a claim without documentation in the form of eyewitnesses, actual wreckage, killed/captured aircrew, or gun camera footage. Also, there were no shared kills. If any doubt existed about the victory, credit was assigned to the unit involved, not to any individual pilot or crewman.

In contrast, there was no definitive American policy, each Air Force determining its own criteria. The 8th Air Force, probably the best known of the U.S. Army Air Forces, enabled aircrews to claim strafing results (ground kills) in a pilot's totals. They also caused confusion by counting shared kills into victory totals—one pilot ended the war with 21.84 kills (whatever that represents)! It is generally accepted that American airmen wildly overclaimed early in the war, but later, when most aircraft were fitted with film cameras, victory claims became much more accurate.

The British had no official policy concerning air-to-air victory claims and it is thought that most British airmen overassessed their performance. If anything, the Russians were worse than the British.

The real reason why German pilots were able to run up such astounding victory totals lay not in the record-keeping, but in the nature of the war.

The Germans initiated war in September of 1939 and were involved until 1945. Poland, France, Britain, The Eastern Front, the Defense of Germany—German pilots were involved from day one and remained in action until the war was over or they were dead! There was little opportunity for rest and recreation—small wonder the German pilots scored such high totals—they were at war every day for five and one half years.

Contrast this with the Allied experience. Britain did not get involved in the war in earnest until the spring of 1940; Russia entered the war in June, 1941; and, of course, the Americans only entered the war after Pearl Harbor. Russian pilots, like their German counterparts, were in the fighting for nearly all of the war. The British and the Americans, however, had a policy of rotating aircrew out of combat once they had completed a certain tour of duty.

This misunderstanding concerning German victory credits is an old one, stemming in part from confusion with the almost lenient criteria for *awards and decorations* in the German Air Force, but mostly from an unwillingness on the part of the Allies to accept the German figures.

Roger Horky
San Antonio, TX

Ed: All right, I'll erase the 84/100ths of an airplane silhouette from my fuselage, but I want Lucasfilm *to install the German awards criteria immediately. Thank you for your enlightened opinion on a longstanding debate. You might note that, in contrast to one of your points,* The Simon and Schuster Encyclopedia of World War II *states, " . . . while the Luftwaffe gave one credit per plane on shared kills, the participating pilots had to decide among themselves which one got the credit, since no shared credits were allowed; generally the junior pilots were given the shared credits to build up morale and scores." (p. 3).*

And Now, For Something Completely Different

Your mag is rad!

Jeff Kaplan
Black Mountain, NC

Ed: Cool, man, cool!

by Arnold Hendrick & Sid Meier



NEWS RELEASE
OFFICE OF ASSISTANT SECRETARY OF DEFENSE
(PUBLIC AFFAIRS)
WASHINGTON, D.C. - 20301
PLEASE NOTE DATE

AIR FORCE DISCLOSES STEALTH FIGHTER

The Air Force announced today the existence of an operational stealth fighter aircraft, officially known as the F-117A. The single seat, dual engine aircraft is built by the Lockheed Corporation in California. The F-117A first flew in June 1981.

The F-117A has been operational since October 1983, and is assigned to the 4450th Tactical Group at Nellis AFB, Nevada. The aircraft is based at the Tonopah Test Range Airfield in Nevada. A total of 59 aircraft are being procured. Fifty-two have already been delivered to the Air Force and 7 more are in production.

With disclosure of the F-117A program, this mature system, which has enjoyed bipartisan congressional support since its inception, can now be fully integrated into operational plans in

F-19 STEALTH FIGHTER

The Reality Behind The Game



When **Microprose** finished *Project: Stealth Fighter* for the C-64 in October of 1987, it was clear than an IBM version was next. Inexpensive PC clones were flooding the market, making 16-bit computing affordable within the American home.

The marketing debate revolved around whether "me too" flight simulator releases had glutted the field to the degree that our time would be more profitably spent elsewhere. Sid Meier was unconvinced by this viewpoint. His philosophy was and is "If you do a really neat game, people will buy it, regardless." Bill Stealey, marketing maestro, was more direct: "I don't care what the other guys are doing, give me a hot IBM product and I can sell it, guaranteed."

Normally the original creators have a big say in conversion design, but in this case the original designers (Jim Synoski and Arnold Hendrick) were burnt out by that effort. Fortunately Sid Meier had a barrel of new ideas for improvements. These included cockpit situational displays with more data, new algorithms for greater mission and radar variation, expanded enemy AI (artificial intelligence). At the same time Andy Hollis had just finished the IBM Gunship conversion. With that experience (his second major 3D graphics package), he was full of new ideas for further improvements in our 3D graphics technology.

It was clear that Sid and Andy weren't talking about a C-64 conversion any more, but an entirely new design. The only thing borrowed from the C-64 would be the game scenario concepts, military equipment research data, and perhaps some flight dynamics algorithms.

The original schedule called for an optimistic 106 man-weeks of work spread over six calendar months and six or seven people. In reality, it took about double that effort over nine to ten calendar months.

Building the Product

Developers at Microprose have specialties: design, data, programming, art, sound, testing, documentation, etc. Fourteen different people worked on the IBM *F-19 Stealth Fighter*, half of them jumping in when their talents were needed, then moving elsewhere when the job was done.

The biggest single task in a computer simulation is the programming. F-19 Stealth Fighter was planned for three or four programmers, working together, who spent over two work-years writing code. In team programming, it's vital that somebody write the "glue", the "master loop", the main program that calls the other components as needed. The responsibility of the "master loop" fell to Sid Meier. His former life as a Systems Analyst prepared him well for this task.

Other areas of responsibility fell to Andy Hollis (3D graphics system), Bruce Shelley (3D world databases), Max Remington (3D objects), Jim Synoski (the "everything else" man), Arnold Hendrick (documentation), and Ken Lagace (music and sound).

Testing The Product

The final hurdle for F-19 Stealth Fighter was testing. The entire Quality Control group got into the act, working late nights and through the weekends. Before the dust cleared over 600 man-hours had been spent hunting bugs, not to mention the programming time spent fixing them. Bug lists run many pages, with bug ID numbers in the hundreds, for weeks on end.

The complexity of testing long ago forced MicroProse to abandon outside testers. A full-time professional Quality Control (QC) man (or woman) can find more bugs, and more important bugs, in one day than an "evening amateur" can find in a week. Complicated products like F-19 Stealth Fighter require special testing tricks, including special game data files that "force" uncommon situations, and special testing hardware systems that let a programmer "break into" the game to see what's going wrong. Even "silly" bugs require a knowledgeable tester. For example, if playtester Al Roireau didn't know that the F-19's maximum speed was Mach 1.1, he might have never realized level flight reading 1500 knots on the HUD was a bug!

Success out of Failure

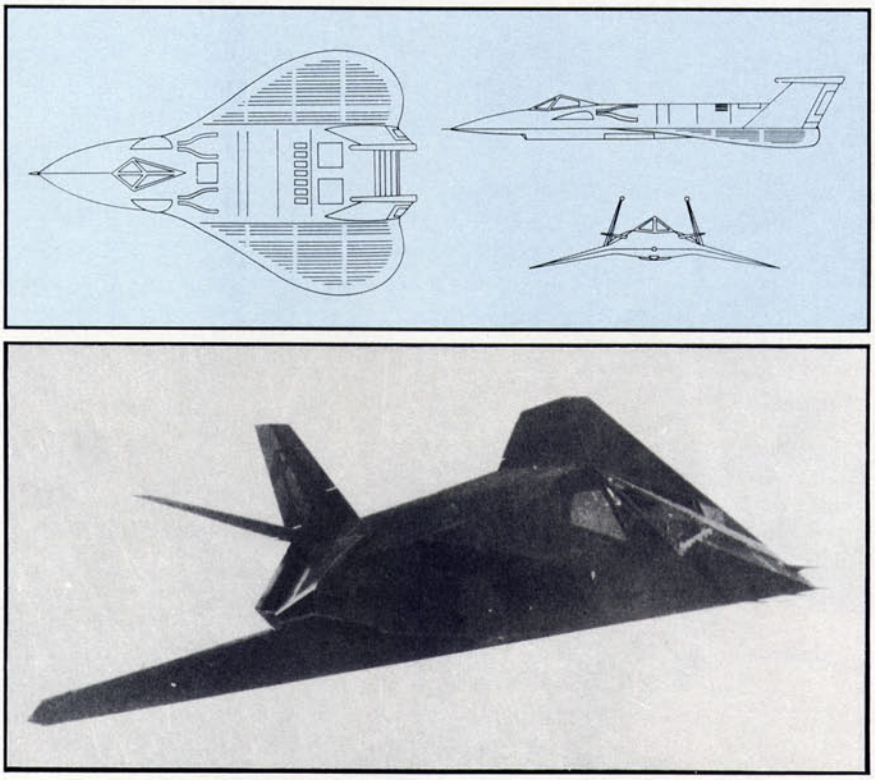
The original schedule planned for F-19 Stealth Fighter's completion in August and shipment in September. Shipment before September 30th is deemed vital in marketing and sales because many large distributors and stores "close off" purchasing for the year on that date.

Unfortunately, development stretched to the end of October. Worse, the printing company selected to produce the manual took five weeks to do a two-week job. Shipments didn't begin until mid November. Traditional marketing and sales wisdom says that a release that late in the season will greatly injure the sales volume.

However the MicroProse's sales force is used to feeling like the Light Brigade at Balaclava. Against all odds they succeeded in getting, at least, distributors and stores to carry the product. The result: F-19 Stealth Fighter is the most successful release in MicroProse history. The initial production run will sell out sometime in January 1989, just two

months after the release, surprising everybody (including the MicroProse product management people!). The investment of 4.2 man-years, including over 2 man-years of programming time paid off.

The F-19 versus the F-117A



Top: F-19 as portrayed in Microprose's F-19: Stealth Fighter's documentation. Bottom: The Stealth Fighter (F-117A) as unveiled by the United States Air Force.

On November 10th 1988, the US Air Force publicly released a photo and some brief information about the Stealth Fighter they've been flying since 1983. How does the "real thing" stack up to the stealth fighter created by MicroProse?

Size: The F-117A is dramatically smaller than the F-19. In fact, it appears smaller than most known combat aircraft. Pundits have called it "a kite with a cockpit". Although both stealth fighter designs have one pilot and two engines, the F-117A almost certainly has much smaller power plants than the two monstrous F404's MicroProse put into their F-19. Smaller size does mean that more airframe can be built from composites, making the plane lighter and less reflective to electro-magnetic radiation. In short, the tiny F-117A is probably more "stealthy" than the F-19.

Performance: Compared to dogfighters like the F-16 and MiG-29, all stealth fighters are presumed inferior. For example, the F-19 has good instantaneous turn rates, but sustained turning is poor, causing it to "stall out" in lengthy turning duels. The F-19 also lacks afterburners, since it uses slats to mask the exhaust signature. Even with huge F404 engines the Mach 1.1 speed is possible only after some fuel weight is burned up. The F-117A's size would give tighter turning, but the large cockpit hump probably causes significant handling problems. On the other hand, the F-117A may borrow the exhaust suppression technology of the B-2, which might permit afterburners. With these lighted, F-117A maximum speed should be higher than the F-19.

Armament: Stealth aircraft must carry all their ordnance internally. Here the large size and big engines of the F-19 give it enormous advantages. It has four internal stations, each holding two or three missiles or bombs (for a total of eight to twelve items, plus a 20mm cannon. The F-117A has perhaps one or two stations, each holding one or two missiles or bombs for a total of 1 to 4 items, one or two being most likely. The shrimpy F-117A almost certainly lacks a gun, since the 20mm Vulçan with ammo is too large and heavy, while no smaller gun is useful in air-air jet combat.

Avionics: Given sufficient miniaturization technology, size does not limit avionics. However, avionics are never cheap. An F-16 with minimal but modern avionics costs $10 million per plane, while the otherwise similar F-18 with full-range modern avionics costs over $20 million each. The USAF bought over 50 F-117As without knocking a huge hole in the defense budget. This means the F-117A almost certainly lacks all those useful devices on the F-19: zoom tracking cameras, FLIR imaging for night flying, laser designators, signal processing for cockpit "situation" screens, and state-of-the-art infrared and radar jammers. In comparison, flying the F-117A could be a "seat of the pants" experience where the most advanced device is the pilot's eyeballs.

Summary: Overall the F-19 probably has superior avionics and weaponry, while the F-117A could be faster and is almost certainly more "stealthy." As a spy plane the F-117A does well. It would sneak in and out better than the F-19. However, air-ground attacks are probably more effective with the F-19. Note that the military advised President Reagan against using the F-117A to bomb Libya Q probably because the F-117A couldn't guarantee sufficient accuracy! In air-air combat the F-19 also appears superior. It has a cannon the other lacks, can absorb more damage, and has a unique zoom camera system that gives a pilot constant close-ups of his opponent's maneuvering. The F-117A is probably appreciated more by the CIA than the USAF; it's a stealth plane for peacetime. The F-19 is a fighter pilot's dream: big, powerful, and rewarding to the smart warrior. It's a combat plane, with plenty of punch to back up its stealth. **CGW**

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EGA Screen Photograph of TRACON



(Continued from page 30)

TV SPORTS FOOTBALL

and he becomes the field general. The system of play is simple, elegant, and fast.

Passing plays require good, but not perfect timing. When the quarterback releases the ball, a green "x" appears on the field. This signifies the center of the "catchable range." Naturally, the closer a receiver is to the "x," the better his chance of catching it. However, the player's "Hands" rating, defensive player's "Hands" rating, and possibility of making a diving catch enter into the calculations.

Running plays primarily depend on speed and the offensive player's "Ability" rating. Success at these plays will require quick cuts to the right or left of the defending player at the last possible second. It can be frustrating until the timing becomes natural. After one gets the timing down, though, it is exhilarating to beat the defender in such a way as to feel like you yourself have actually executed a great open field move against the opponent.

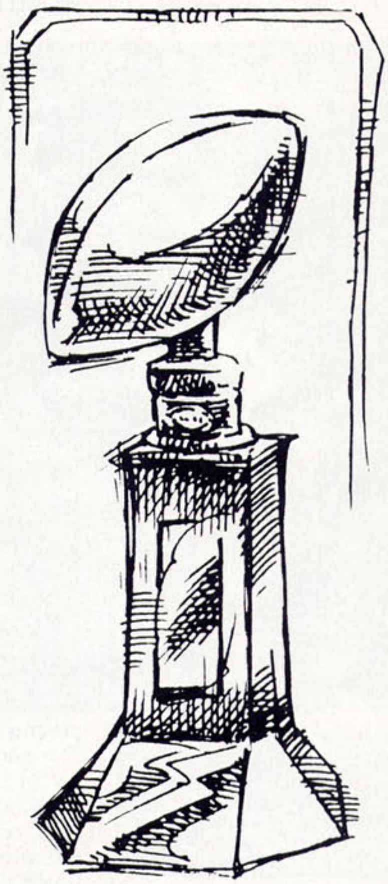
Nevertheless, there are weaknesses to the system. First, the active player flashes in the same color as the opposing team. It is extremely distracting to attempt to run from tacklers in your own colored jersey or even to find your player visually in an opposing backfield as you attempt to sack the quarterback. It would have been better if the player had flashed in a neutral white. Second, one's view of the playing field is limited by the camera angle. Therefore, one can only see around 20 yards downfield from the line of scrimmage. It is difficult to complete a long pass when one cannot see the receiver well enough to line up the throw. This makes a short passing game much more viable than a long game for all the wrong reasons.

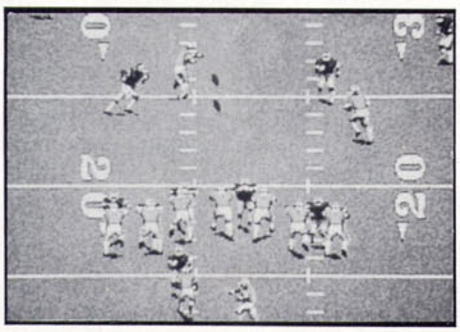
Third, the documentation could have been more helpful. It seems extremely uneven to print a booklet in excess of 40 pages to describe the basics of football (so basic as to explain what a halfback is) and spend less than eight pages discussing the control system and features of the computer game itself. Further, the smaller booklet has a much more cluttered layout, uses different terminology ("Agility" rather than "Ability"), and is more difficult to read, even though it is extremely important that players master its contents.

Fourth, the offensive and defensive lines are treated as a lump sum entity (as in *Computer Quarterback*) rather than as individuals as in NFL Challenge, Pro Football Simulator, MSFL Pro Football, and the soon-to-be released *John Madden Football*. This takes away some of the strategy of getting the right match-ups. In *Head Coach*, one can exploit the computer opponent by using fresh substitutes to open up important holes on a given play. In *Pro Football Simulator*, it makes a difference whether the blocker is a good pass or run blocker. John Madden believes that individual match-ups are the key to the game. TV Sports simply "levels the playing field" on this matter.

Game Plan

TV Sports: Football is an ideal product for the casual fan who wants to compete against his buddies in an exciting league. The statistics compiler keeps league statistics so there is no hassle for the "commissioner" (although there is, as yet, no built-in utility for printing those stats). In addition, the commissioner has the option of using the "AUTO-play" mode enables the computer to resolve games when human "owners" fail to show up. Fans who want the detail, sophistication, and player identification of the National Football League will be disappointed with the current product (but might be interested should Cinemaware decide to publish an NFL team disk). The rosters can be edited so that actual professional athlete's names could appear and the ratings can be edited to generally reflect an actual player's abilities, but as mentioned earlier, this is not entirely satisfactory. Action game fans who want a difficult game may not like this game as well as a strict arcade game like *John Elway's Quarterback*, but players who want to capture the atmosphere, flow of play, and fast-moving competition of professional football should love it. **CGW**







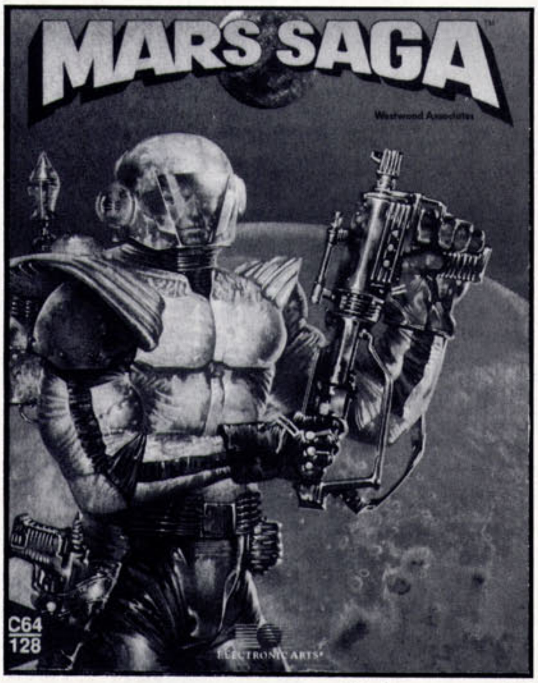


Tales of a Martian Manhunter

Electronic Arts' "Mars Saga"

by Joe Sherfy

The good news is that the governments of Earth have finally figured out what to do about the overcrowding of prisons. They sent all of the convicts to Mars to work in the mines. The bad news is that you're stuck on Mars. You were taking a leisurely trip when your ship developed engine trouble and this is where you've ended up. Well, at least, the Controllers of Mars have offered you a job. They want you to find out what happened to the outpost called "Proscenium." Should you be successful, they will do whatever it takes to help you get off planet.



Such is the situation characters find themselves in when they play *Mars Saga*, a computer role-playing game set in the far future. The game begins from the perspective of Tom Jetland, the character described in the fictional introduction. Next, players recruit additional team members to create the typical adventuring party. Each character is rated in several critical areas (might, agility, stamina, health, wisdom, education, and charisma) and has a particular background (e.g. police) to justify the acquisition of his individual skills (administration, battlearmor, language, etc.).

TITLE:	Mars Saga
SYSTEMS:	C-64/128
# PLAYERS:	1
PRICE:	$34.95
DESIGNERS:	Westwood Associates
PUBLISHER:	Electronic Arts San Mateo, CA

Should the characters need more development, players have the option of enrolling members of the party in the University. There, characters can improve their skills for a small fee. Improving a character's computer skills, for example, will enable the party to break into computer terminals all over the Martian settlement of Primus. There is also a Personal Development Center where characters can improve their attributes for a nominal charge.

Of course, it is possible to build up a character without tuition payments. Since, combat skills are improved by means of actual combat, one simply helps the badly understaffed police department in disposing of some of those nasty fellows running about the streets of Primus.

Warlords of Mars

The game's combat system is fast-moving and exciting. The screen brings the battle to life and shows the dispositions of each force. Then, players are given the option of taking control of all, some, or none of the characters. The computer can be assigned to handle any team members not under direct player control. Combat is played in turns with orders being given to each character in sequence. These orders are joystick-driven and characters with more agility are allowed to perform more functions in a turn. After all orders have been input, combat begins. Battles are resolved very efficiently. Then, it is "spoils" time for the victors and on to the hospital to treat any wounds received in the skirmish.

On the "Mars" of the game as on the earth of our reality, money is important. Within the game, money is necessary to better equip the team or improve the characters' abilities. Characters can check the computer system for want ads to respond to or visit the police station to find out about bounties to be collected. A lot of the money can be earned by gambling, but it is also easy to circumvent the system and earn money by enlisting team members, fighting a battle or two, and then, taking their credits. After that, one simply drops them from the team, enlists new troops (making sure they have a decent amount of funds on hand), and repeats the procedure. Of course, the sale of captured weapons is also a good source of income as in any standard adventure game.

The game has much to recommend it. First, it is very accessible. One can read the instructions and begin play in just a few short minutes. In addition, the game utilizes near-industry standards such as auto-mapping and joystick-driven interface to keep the game moving at an enjoyable pace. Newcomers to CRPGs should enjoy the combat system because they can allow the computer to handle the team until they are more comfortable with the game. Further, those who are more interested in the storyline than in combat can also have the computer resolve the combat without having to view it. Finally, it offers a user-friendly option in the ability to save games without having to switch disks.

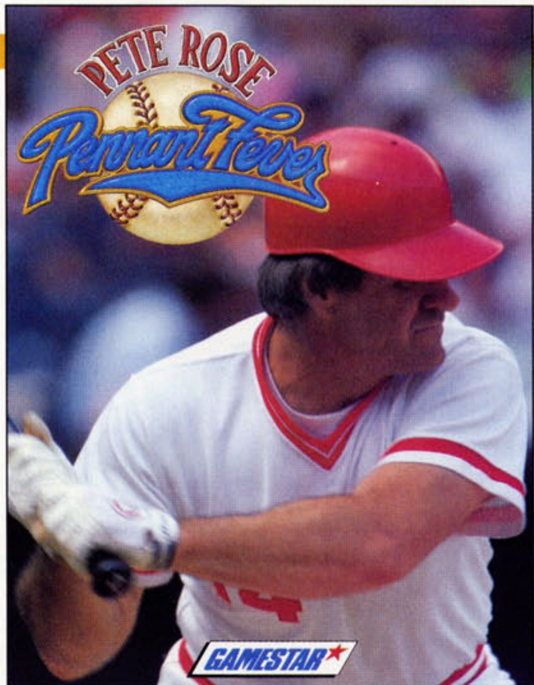
Warts of the "World"

Yet, there are some drawbacks to the game. First, one of the methods of earning more money is gambling. However, building up large amounts of cash in this way is a very time-consuming process and encourages one to short-circuit the rules. Second, the documentation could have given the player a little more information on the various opponents to be encountered in the course of the game. It would have been nice if the documentation would have included a rundown of the characteristics of one's opponents. This could even have been incorporated into the game as information to be obtained from the computer bank on Mars.

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PETE ROSE PENNANT FEVER.
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Writing Your Own

Three Software Adventure Kits Compared

by Scorpia

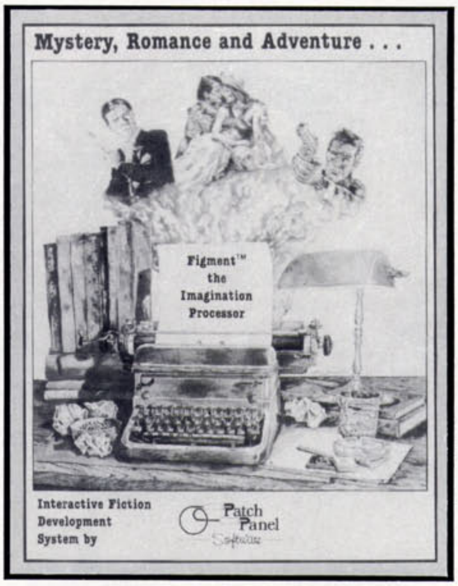
Sooner or later, just about every adventure game player gets the urge to write a game of his or her own. For most, however, the urge ends up being nothing more than a dream, unless the person has some programming skill to go along with the idea.

Enter various adventure game construction programs. These commercial programs are written primarily to allow the non-programmer to design and run adventure games without having to learn to code in a particular language. This article examines three such programs.

Keep in mind, however, that these programs are all copyrighted. You can create games with them to give to friends, but you cannot sell them without permission of the copyright holder. The game idea may belong to you, but the underlying code that makes it work belongs to someone else.

If your inclinations are toward text adventures, you may want to consider *Figment* or *Adventure Game Toolkit*.

Figment: The Imagination Processor



TITLE:	Figment: The Imagination Processor
SYSTEM:	IBM
PRICE:	$95.00
DESIGNER:	Patch Panel Software
PUBLISHER:	Patch Panel Software 11590 Seminole Blvd. Suite A-9 Seminole, FL 34648

Figment is a complete package that provides various templates for creating adventures, as well as the means to jump between the game and the editor to make changes "on the fly". This is a handy feature, as you don't have to stop the game to fix problems and then recompile and re-run the program. Also, Figment is heavily oriented towards CRPG aspects, so a character's attributes and fighting/spell casting ability are important.

Creation begins at the "Stuff" menu template. "Stuff" is everything except the rooms: the player, objects, creatures and people, etc. All of these have a variety of attributes and descriptions to be filled in by scrolling through the menu.

After that, come the "Scenes" (rooms) where you get to unleash your creative writing abilities, followed by the Map which is used to define the connections between the rooms. Another menu allows for creating synonyms for commands.

This is easy, but things tend to become a little complicated after this. In order to actually make things happen in the game, any special circumstances meant to occur have to be defined, room by room, by means of the Pre and Post Command Testing menus. This is done in a sort of quasi-programming style that is not always easy to follow, particularly if the sequence of events is complex.

The Pre-Command Tests check for certain conditions before the command is evaluated by the program, while Post-Command tests are checked after the player issues a command. This is necessary for every room except those where nothing is ever going to happen. There, the Pre and Post tests will just be blanks.

A room can have as many as 14 tests of each type, so you can work up some pretty sophisticated routines, keyed to current or future events. However, even the simplest ones must be carefully worked out and tested because of the way they are set up using the programming language. Here is an example from the demo tutorial game that comes with Figment:

```
    If{
        Player is_linked_to Metal
        Vest
        Metal Vest is_locked
}Then{
    msg_to_desc Weather
    inc_msg
    Msg_to_exam Metal Vest
```

The above code checks to see if the player is in possession of (is_linked_to) the Metal Vest, and if the Metal Vest *is* locked, it can't be removed (is_locked). If both these conditions are true, the program will display a message about the weather, as well as one about the metal vest (which, by the way, is cursed).

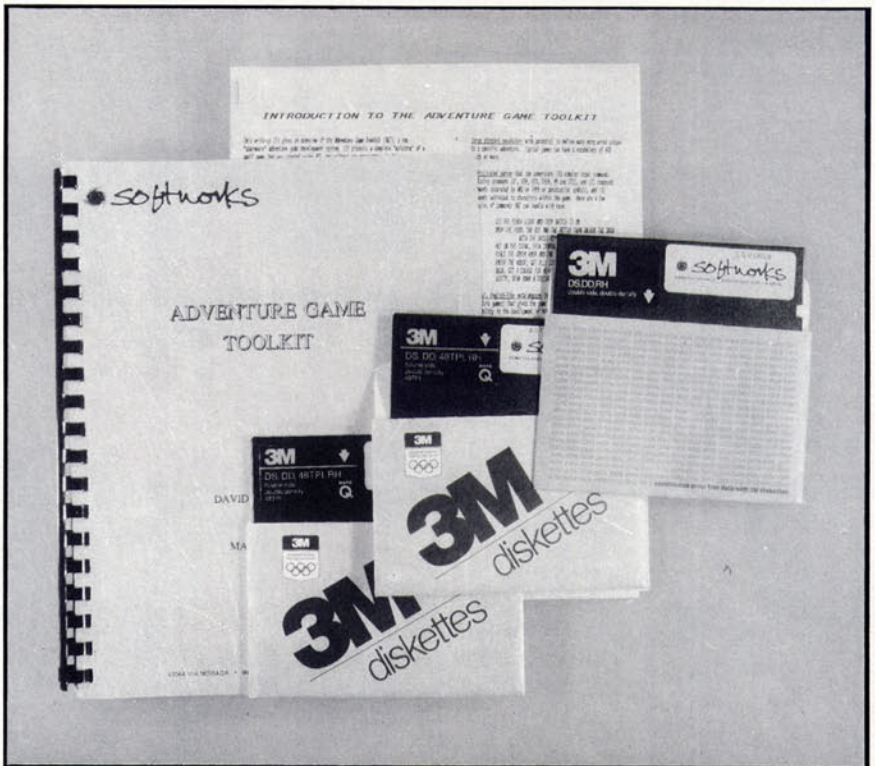
On the template page, the If and Then are separated by blank lines where the designer can fill in the test conditions and results. This is done simply by positioning the cursor on a blank line and using up and down arrow keys to scroll through possible choices. All items previously defined (objects, people, scenes) are available through the scrolling. So are the various conditions (is_locked, is_linked_to, etc), which are preset and cannot be changed (except to negate, so that is_locked could be is_not_locked). No typing is required. You just plug in variables from a common pool by scrolling until what you want shows up.

Working out the exact sequence of what you want, however, is the tricky part. Each test (pre or post) is standalone. It simply checks the current condition every time the player is in that particular room and "fires" or not depending on the results. Some really odd things can happen, especially with multiple tests, if you don't carefully think out the exact sequence in advance.

You should also be careful when jumping between the game and the editor. Invisible pointers are being updated while you fiddle around in the editor and you may return to the game to find yourself in the wrong room or with the wrong message being displayed.

Circle Reader Service #19

Adventure Game Toolkit



TITLE:	Adventure Game Toolkit
SYSTEMS:	IBM, Macintosh
PRICE:	$35.00
DESIGNERS:	David Malmberg and Mark J. Welch
PUBLISHER:	Softworks 43064 Via Moraga Mission San Jose, CA 94539

The *Adventure Game Toolkit* (AGT) is the most Spartan of the packages and is, essentially, a sophisticated compiler. You create a data file containing all the necessary information by using your word processor (no templates here!). Then, you compile it into a playable game.

AGT's parser reminds me of **Infocom**'s. It can understand and operate on such commands as "Put on the cloak, then examine it; read its label;" "Place the green rock and the small pebble behind the tree;" and "Scotty, beam down a tricorder and the QWERTY module." That's powerful.

Constructing games with AGT is not difficult, although a fair amount of typing is necessary. You simply create a data file and start entering data. No programming, as such, is needed. The program doesn't much care about the order (since it will create the actual run time files during the compile process), but for debugging, keeping similar things together is essential.

Thus, you should create all the rooms first, then objects, then people (if you intend to have special characters wandering around the place). Everything has a number associated with it, in particular ranges, so the program knows by number if an item is a room, object, or person. For instance, a room could be described as follows:

ROOM 2 Reception Room North 5 Southeast 6 END_ROOM

This creates room 2, the reception room. Going north from here would bring you to room 5 (whatever it is) and southeast to room 6 (whatever that one is). A separate ROOM_DESCR is also necessary for each room, in which its full description is given.

Objects are created in much the same way, although they have characteristics instead of directions and these determine what can be done with them (taken, dropped, played, pushed, opened, closed, etc). If an item is something such as a locked door or box, the KEY to the item also must be specified. Special events, such as opening a locked door, are easily set up using a few commands. Again, no programming is necessary.

Creature set-up is also similar, although care needs to be taken if the creature is hostile. Characters cannot leave a room with a hostile being in it (rather a drawback, as there ought to be a provision for running away). Thus, a weapon must be placed somewhere in the game that can be used to remove the hostile being. Creatures can also be "group members" who follow the player character wherever he or she goes.

You can also create synonyms for any verb or noun (including creatures) in the game, such that "take" can also be expressed as "get, snarf, grab", or "coins" can be called "money, gold, cash", etc.

Those who are unsatisfied with this basic way of creating a game with AGT can utilize the program's slightly more complex meta-language. This allows for some truly professional results. These commands include counters and flags to allow for a variety of events, custom-defined verbs, and testing for complicated conditions (in much the same fashion as the tests in Figment). It isn't necessary to use the meta-commands to build a game, but they are available.

The program is text-only, but does allow for changes to background color, text color, and player input color. These can be set in the game's title file or changed dynamically in the adventure itself.

The main problem with AGT is that with no in-game editor, debugging, especially a complex game, can become exceedingly time-consuming . After playing your game and finding the bugs, you have to exit, get into your word processor, make the changes, and then, recompile and replay the adventure.

Also, I found that keeping my word processor active in the background kept AGT from compiling.

With AGT, unlike Figment and ACS, you can create and give games to friends who don't have the system. You simply copy the necessary files to another disk and your friends can play them. They don't need to have AGT itself.

The manuals for Figment and AGT are fairly comprehensive, with numerous examples and explanations of their features (although Figment's documentation is a little hard to follow in the areas of Pre and Post command testing). ACS' manual contains everything you need to know to create a game, but without an index or table of contents, you must do a lot of page-flipping to find what you want.

One thing any of these packages will teach you is the value of sitting down and working your game out thoroughly *before* you touch a key. Precise notes and maps are a necessity to the successful creation of any adventure game. Trying to do it on the fly only makes for frustrating problems. It is also important to read the documentation carefully, more than once, to get an understanding of how the underlying code functions. Otherwise, you will end up with a mess that is a nightmare to debug.

Circle Reader Service #20

(Continued on page 56)

and end up getting killed? What is our responsibility?"

Dave Mencone (professional software tester) offered another perspective by asking, "What about those who *don't* enter the military because they got what they needed from a game?"

Next, the discussion turned to predictions about the future of simulations. Ned Lerner (*Chuck Yeager's Advanced Flight Trainer*) commented that there is a new target audience—35 year olds. "We're all going to try to reach the Tom Clancy market." He also alluded to the fact that there are all sorts of rumors about custom hardware add-ons to enhance play.

Louie remarked that the simulations market is such that, like movies, the person who owns one, owns ten. Further, with the new hardware coming on the market, authors no longer are forced to write to the lowest common denominator. Rather, products will now be written to take advantage of the particular hardware available. "Falcon A.T. will look like cardboard by next year. We can't stop pushing. There will always be a market. There will be, at least, ten new flight simulators next year. I guarantee it."

"Trying to sell your product by first changing society is a tough proposition."



Clockwise from Upper Left: Crawford imitates an angel. // Kellyn Beck (Defender of the Crown, Rocket Ranger) imitates a dwarf. // Brian Moriarty (Trinity, Beyond Zork) imitates Phil Donahue while Mark Baldwin (Empire) in black shirt imitates The Thinker and Ozzie Cadenza raises hand. // Gordon Walton (PT-109) tries to imitate Chris Crawford while Gilman Louie (Falcon), center, and Ned Lerner (Chuck Yeager's AFT) imitate a Congressional Committee. // Chuck Kroegel (Gettysburg) imitates Ollie North. // While Dan Bunten (Modem Wars) imitates Chuck Kroegel.

Walton stressed that people want the ability to change parameters, select more and varied scenarios, and utilize more modem and network features. He believes that there will be a continuing increase in sophistication. One thing recent products have taught us is that ". . . an extremely difficult game can do well commercially."

Louie reminded the designers that ". . . nearly every major publisher turned down *Falcon* when we were simply developers, because they perceived it as too difficult for the mass market."

In the discussion period, Bob Lindstrom (editor of *A+* magazine) stressed, "We are doing a good job of simulating the mechanics of warfare and strategy, but we haven't captured the human experience. . . . until we manage to simulate a buddy being blown out of the cockpit and we *care*." In relation to this, Noah Falstein noted that in the bail-out sequences in *Battlehawks 1942*, people have asked if they can shoot down the pilots that bail out. The decision of Larry Holland and Falstein was that they could, but they put a counter into the game where the enemy fighter pilots come after the player if they themselves are ever shot down. Louie mentioned that in Vietnam, there were rules of engagement. If a person bombed a church, for instance, they lost social status and the chance at a medal.

The session closed with questions and answers. A question about mixing FRPs with simulations evoked the answer, "It's a natural." The reason it hasn't yet happened is because of lack of machine power, memory, and publisher interest. Asked about naval simulations, Walton answered that ships are harder to simulate than jets and helicopters. There is more to model. These will probably be command simulations as opposed to cockpit simulations. Asked about land simulations? Louie commented that there are apparently going to be about 20 of them in the next year, particularly tank simulations.

For final thoughts, Rich Hillemann (executive producer of simulations for **Electronic Arts**) observed that the simulations business is to computer entertainment what the special effects teams are to the movie business and Louie concurred, "We are the 'model builders' for the future."

Multi-Player Games

The problem with multi-player computer games is getting the computer into the right room (computers are usually in a study, home office, or back bedroom rather than the family room) or going out

the back door (via modem to a network or point to point). Dan Bunten revealed that only 30,000 units of *M.U.L.E.* were sold. Everybody has played it, but not everybody has purchased it. Even though multi-player games have not, heretofore, been great commercial successes, the theory is that networking and point to point gaming changes the economics of socialization—anyone can be equal. Multi-player games may be a cultural issue. "Trying to sell your product by first changing society is a tough proposition."

Real interaction is not between player and the screen, but between players. We really liked the term, electronic campfire, which came to be used to reflect the community and family building aspect of multi-player games.

Several designers were excited about the use of BBSs for "play-by-electronic-mail" games. CGW editor-in-chief Russell Sipe was very involved in the early days of PEBM when he founded "The Armchair Diplomat," an electronic newsletter which reported on PBEM *Diplomacy™* games on **Compuserve** and the **Source**.

Several designers were excited about what fiber optics in the home will do for the future and what LANs may do for office gaming.

In the question period, Bunten responded to one major problem. "What happens when one computer is faster than another?" To keep from diverging, there are various states where the computers are put into lock-step. Bunten uses a "send a delta" approach.

Award Winning Performances

One highlight of the conference was the awards banquet in which the designers gave awards to the publishers. The winners were:

Best Technical Support:
Electronic Arts
(Runner-up:
Epyx)

Best Quality Assurance Operation:
Microprose
(Runners-up:
Broderbund, Epyx, and **Infocom**)

Most Innovative Publisher:
Cinemaware
(Runners-up:
Electronic Arts, Microillusions, and **Mindscape**)

Best Producer:
Matt Householder (Epyx)
(Runners-up:
Dave Albert (EA), Christopher Erhart (Infocom), Rich Hillemann (EA), and Terry Ishida (Activision))

Best Publisher:
Origin Systems
(Runners-up:
Broderbund, Electronic Arts, and **Epyx**)

An honorary award was presented to Chris Crawford as *Zee Greatest Game Designer in Zee Universe.*

The game designers plan to hold such conferences twice per year and the results seem certain to improve the quality of various games. **CGW**

(Continued from page 14)

The Colony

amount of interaction with the objects around you, and none to speak of with non-player characters.

If you're a purist and like your action games brainless and your adventure games run from the keyboard, this may not be your game. If, however, you are looking for a challenging game that successfully combines the two genres, this is it.

Having a Blast (Cheaters' Corner)

Warning: This section contains specific information about the game.

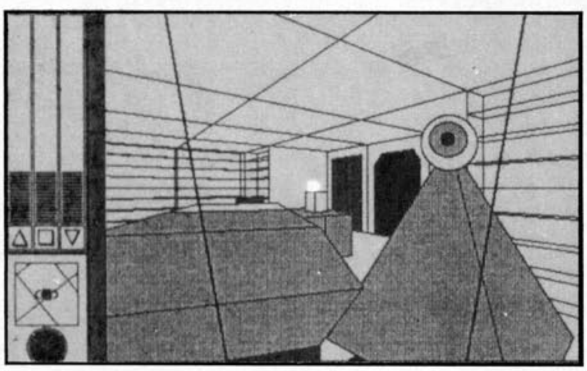
One way to play this game and keep your sanity is to rely on teamwork: have one person mapping and the second "steering."

Some people can't seem to get out of the ship without getting killed. This is hardly surprising, considering the pressure they're under.

Once on the planet's surface, find the colony as soon as possible. In some games, your enemy is polite enough to come at you one at a time; this is not the case in this one. If you need extra help finding the colony, subtract one from each letter (make "b" into an "a" etc.): lffq uif nppo po uif mfgu tjef pgzpvs tdsffo.

You will find extra fuel for your suit and ship in the colony, but getting it into your ship after you've removed the old core might be a problem.

There is one spot where the author pays tribute to the movie 2001. If you end up here, you're finished. Good luck.



CGW

(Continued from page 53)

Writing Your Own

Adventure Construction Set



TITLE:	Adventure Construction Set
SYSTEMS:	Apple II, IBM,
PRICE:	$14.95
DESIGNER:	Stuart Smith
PUBLISHER:	Electronic Arts San Mateo, CA

Circle Reader Service #21

Finally, one might consider an old-timer, the *Adventure Construction Set* (ACS), which lets you design graphic adventures in any of three settings: Fantasy, Modern, and Science Fiction. ACS is menu-driven in the creation phase, which makes it relatively easy to use. You can move around and edit different parts of the game quite easily, going from the world map to particular areas to specific rooms to changing creature attributes with no trouble at all.

Virtually every feature of the game, including terrain, treasures, monsters, friends, traps, magic, weapons, armor, etc. can be altered to suit your tastes (or deviousness), thus giving you practically unlimited control over the final product. In addition, characters (monsters, animals, friends, enemies, etc.) can be set to follow a wide range of behavior patterns such as: peaceful, aggressive, brave, or cautious.

Even the graphic depictions of everything in a game can also be changed by using the graphic editor. This lets you modify the shapes and/or colors of any item or add new ones should you feel so inclined (Special note to IBM owners: while the label on the package says CGA, the program supports the full range of EGA colors, as well). Care needs to be taken when fooling around with changing colors, however, since cycling through the palettes automatically changes the colors of all items (not simply the one you may be working on at the moment) and can leave you with purple water or gray trees.

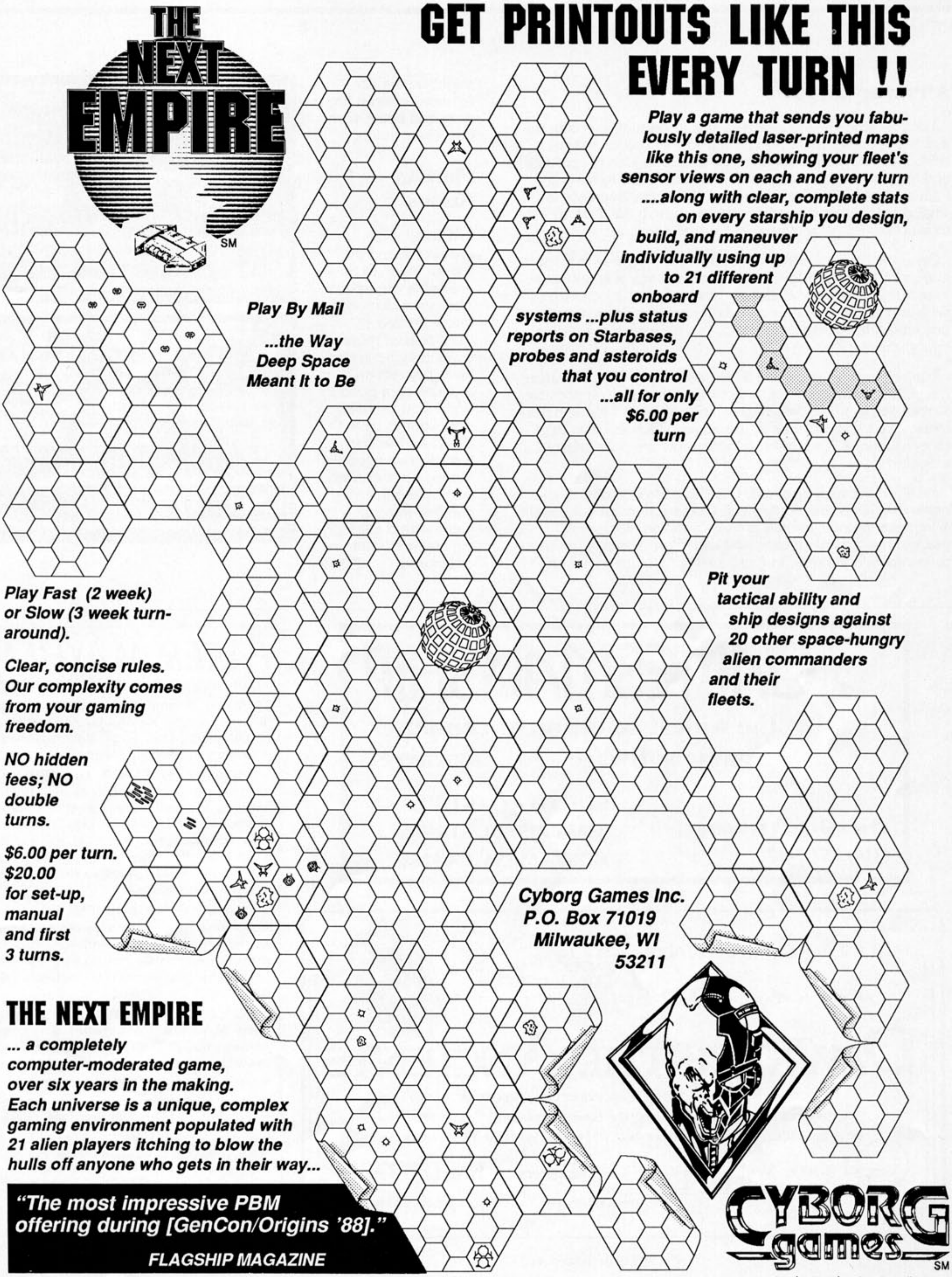
Music is also part of ACS and allows you to add tunes to the game. There are different ones for each of the three main types (fantasy, modern, and science fiction). This is optional, and you can turn the sound off entirely if you prefer.

The major drawback to ACS is that, even for a simple project, it can become a very time-consuming process to create a game. The world map has to be made, followed by the regions (which contain the rooms), the rooms themselves (complete with resident beings, goodies, and so on). Then, to edit existing items or create new ones adds even more time to the effort.

To somewhat get around this, you can partially construct a game and have ACS finish it. Thus, while you may know some of the game, the rest will come as a surprise. It is also possible to have ACS construct a completely new game from scratch by specifying the type of game and difficulty desired and letting ACS do all the work.

Each of these packages has its strengths. ACS offers graphic screens, Figment offers a game/editor gateway that allows easy fixing of bugs and a template system that removes most of the typing drudgery; and AGT acts as a compiler which allows for creating (especially with meta-commands) remarkably complex and sophisticated games in a fairly simple way.

 CGW



Circle Reader Service #45

A Primer On Mars

As far as strategy is concerned, it is important to recognize that the team will be fighting a number of battles against a host of different opponents and it is a good idea to "practice" and improve the characters' combat skills prior to leaving Primus. As soon as the characters' skills have been somewhat developed and enough money earned, it is time to move on to Progeny (where it is somewhat safer).

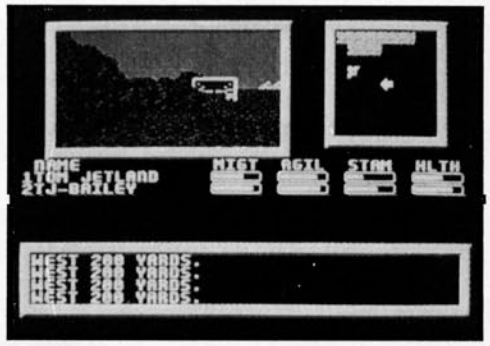
Once the team of adventurers arrives in Progeny, it is most important to break into the computer system. It is advisable to recruit someone who already has some basic computer skills and spend whatever it costs to improve them. Once one cracks the computer system, this opens up numerous opportunities.

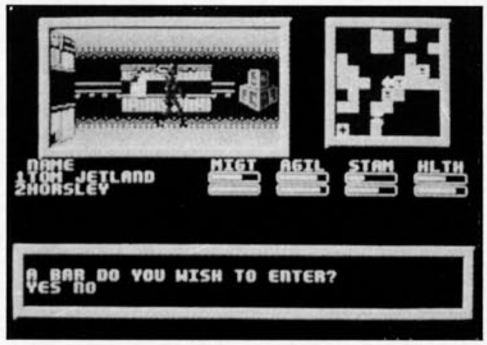
Further, the mines can be a real treasure to the bold adventurer. If the team confines its activity to the city, it is possible to miss some of the delightful aspects of "Mars." More importantly, one can find items in the mines which will help in other situations. The outlying inhabitants are pretty nasty, though.

Finally, don't be a tightwad. Use the team's credits to improve their skills and equipment. Characters must continually improve in order to have a chance to win. Weapons, programming, battle armor, and medicine skills pay the most dividends. Who knows, that extra suit of Golum armor just might be the difference between winning and being someone else's lunch.

Martian Kudos

All in all, this reviewer found the trip to "Mars" to be an enjoyable excursion. The game does not follow the recent trend toward more complexity, so it can be highly recommended as a good introduction to those who want to try a CRPG for the first time. It is also recommended to those who want a user-friendly and fast-moving game with a challenging stable of different opponents. **CGW**









Scavengers of the Mutant World



Double Dragon



Crash Garrett



Alien Syndrome



Annals of Rome



Firezone

Broderbund
17 Paul Drive
San Rafael, CA 94903-2101

DOWNHILL CHALLENGE: One to six players compete in four different skiing events in this fast moving, 3-D race game. Downhill, slalom, giant slalom and jumping are available for competition on beginner, intermediate or advanced runs. Be prepared for plenty of nose plants! C-64 pictured on pg. 4 ($29.95). Circle Reader Service #6.

Discovery Software
163 Conduit Street
Annapolis, MD 21401

SWORD OF SODAN: Players seek the evil necromancer, Zoras and attempt to avenge the death of their father in this joystick driven role playing/action game. Great graphics (reminiscent of *Dungeon Master*) and digitized sound enhance the action as players work through 11 levels of the dreaded graveyard spirits, giant scorpions, and castle guards. Amiga pictured on pg. 4 ($49.95). Circle Reader Service #7.

Electronic Arts
1820 Gateway Drive
San Mateo, CA 94404

ZANY GOLF: Jack Nicklaus meets *Marble Madness* in this incredibly imaginative version of miniature golf. Each of the nine holes are mini-games in themselves, except players have to work their way up to the final hole. One to four "battle" their way past flashing lights, bouncing burgers, laser beams, particle rays, fireworks and the classic windmill. This game is tough and addictive! IBM pictured on pg. 4, Apple IIGS ($39.95). Circle Reader Service #8.

Interstel
P.O. Box 57825
Webster, TX 77598

SCAVENGERS OF THE MUTANT WORLD: Players scrounge and scavenge their way across up to four million worlds in this post-holocaust, strategy adventure game. Parties of four explore, map, plunder, and fight through civilization's rubble while trying to stay alive and avoid radioactive contamination. Top-view graphics enhance the combat screens and individual, tactical combat provides the player with options-o-plenty. IBM pictured on p. xx, ($54.95). Circle Reader Service #9.

Mindscape
3444 Dundee Road
Northbrook, IL 60062

ALIEN SYNDROME: As Mindscape's series of Sega conversions continues, players race against time (in fact, a time bomb) to purge sector after sector of an alien infestation and rescue captured colonists. This joystick-driven action game is *Barbarian* meets *Gauntlet* in Outer Space! C-64 pictured ($29.95), Atari ST and Amiga ($39.95). Circle Reader Service #10.

PSS (from Intellicreations)
19808 Nordhoff Place
Chatsworth, CA 91311

ANNALS OF ROME: One player has the thankless task of trying to expand the Roman Empire while fighting off hordes of barbarians and dissatisfied rebel legions in this intriguing strategy game. It's all here: tax the citizens; bribe the legions; promote and demote senators, tribunes and legates; conquer barbarian homelands; and recruit auxiliaries. The only thing missing are those great tailgate parties after the chariot races! IBM pictured, Atari ST and Amiga ($34.95); C-64 ($24.95). Circle Reader Service #11.

FIREZONE: Outstanding graphics highlight this one or two player strategy/wargame set in the 22nd century. Players maneuver grav tanks, infantry and a variety of other futuristic weapon systems over a wide variety of realistic terrain in an attempt to wipe out the enemy. Hidden movement, nine different campaigns, scenario generation, and map creation modules add depth to this game. Atari ST pictured, Amiga and IBM ($34.95); C-64 ($24.95). Circle Reader Service #12.

SORCERER LORD: Another in the "Wargamers Series," this time the player must fight off an invasion from the evil Shadowlord's Wolf Riders while gaining control of the enchanted Rune Rings. Elements of role playing combine with the strategies of wargaming in a graphically gorgeous fantasy world. Sorcery, fatigue and leadership ratings all factor into combat. This could be an updated version of the Lord of the Rings. Atari ST pictured, Amiga and IBM ($34.95). Circle Reader Service #13.

Scorpion
19 Harbor Drive
Lake Hopatcong, NJ 07849

OVERLORD: One player oversees the Allied invasion of Normandy from D-Day to the final destruction of the Wehrmacht in France. Colorful graphics enhance this strategic wargame which includes hidden movement, airborne operations, morale, supply and multiple difficulty levels. This is similar to Sim Can's *Operation Overlord*, but with colorful graphics. Atari St ($39.95). Circle Reader Service #14.

SPACE SCHOOL SIMULATOR: The player takes part in 20 training missions in an attempt to graduate from this futuristic "Top Gun" flight school. Lasers, shields, scanners, missiles, flares, infra-red and delay bombs are all available along with an option to design your own ship. Shades of Tom Corbett, Space Cadet! Amiga pictured, Atari ST and IBM ($34.95). Circle Reader Service #15.

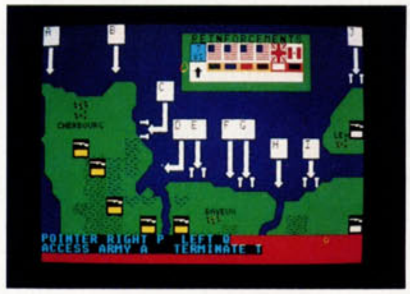
VULCAN: One or two players fight out the Tunisian Campaign from WWII. The game features hidden movement, air attacks and multi-scenarios. This is a companion game to CCS's *Desert Rats*. Make sure you take a good sun block with you on those long desert treks! IBM (39.95). Circle Reader Service #16.

Spectre Software
P.O. Box 6614
Lakeland, FL 33807

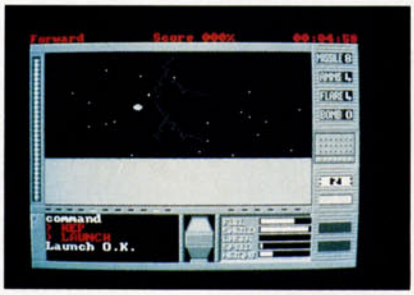
FRIDAY NIGHT POKER CLUB: Players compete against four of the twelve members of the Friday Night Poker Club in this poker simulator. Dealer calls the game, and each computer player plays according to his own style. The player can watch, practice or blow his dough in this easy to follow game. All you need to add are the chips and dip. IBM pictured ($49.95). Circle Reader Service #17.



Sorceror Lord



Overlord



Space School Simulator



Vulcan



Friday Night Poker Club



Battles of Napoleon

Strategic Simulations, Inc.
1046 N. Rengstorff Ave.
Mountain View, CA 94043

BATTLES OF NAPOLEON: Miniatures come to the computer in this multi-scenario, wargame/construction kit. Refight Waterloo, Quatre Bras, Auerstaedt and Borodino, or let the computer design a random battle. Better yet, players can design their own with this powerful game system. The game includes skirmishers, infantry squares and cavalry charges. Oh those Greys! Apple II pictured, and IIGS ($49.95). Circle Reader Service #18. **CGW**

Conversions Received

For the Amiga

Captain Blood (Mindscape)
Rebel Charge at Chickamauga (SSI)
Reel Fish'n (Interstel)
Tetris (Spectrum Holobyte)
Twilight's Ransom (Paragon)

For the C-64

Crazy Cars (Titus)
Jack Nicklaus Greatest 18 (Accolade)
Jordan vs. Bird (EA)
Rampage (Activision)

For the IBM

Bard's Tale II (EA)
Battle Chess (Interplay)
Fast Break (Accolade)
Halls of Montezuma (SSG)
Indoor Sports (Mindscape)
Platoon (Data East)
Sidewinder (Arcadia)
Skate or Die (EA)

Wright

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IBM SOFTWARE

	LIST PRICE	WRIGHT PRICE
2400 AD	$30	$20
4th & Inches	40	26
Ancient Art of War	45	29
Ancient Art of War at Sea	45	29
Apollo 18	40	26
Balance of Power	50	34
Bard's Tale	50	33
Beyond Zork	50	33
Black Cauldron	40	26
Breach	40	26
Bridge 5.0	30	20
California Games	40	26
Chessmaster 2000	45	29
Defender of the Crown	40	26
Earl Weaver's Baseball	40	26
Elway Quarterback	30	20
Empire	50	33
Falcon	50	33
Flight Simulator 3.0	50	33
Gold Rush	40	26
Gunship	50	33
Hunt for Red October	50	33
Impossible Mission II	40	26
Jordan vs Bird: one on one	40	26
King's Quest I, II, III or IV	50	32
L.A. Crackdown	50	33
Leisure Suit Larry	40	26
Leisure Suit Larry II	50	33
Manhunter New York	50	32
Monopoly	40	26
Nobunaga's Ambition	60	39
Pirates	40	26
Platoon	40	26
Police Quest I or II	50	32
PT-109	50	33
Rings of Zilfin	40	26
Rocket Ranger EGA	50	33
Romance of Three Kingdoms	70	46
Sent. Worlds I: Future Magic	50	33
Shard of Spring	40	26
Sherlock	43	28
Shiloh	40	26
Silent Service	35	23
Solitaire Royale	35	23
Sons of Liberty	40	26
Space Max	60	39
Space Quest I, II or III	50	32
Star Command	50	33
Starflight	50	32
Star Saga	80	52
Strike Fleet	40	26
Test Drive	40	26
The Games: Summer Edition	50	33
The Games: Winter Edition	50	33
The Sporting News Baseball	40	26
Thexder	35	23
Three Stooges	50	33
Thud Ridge	40	26
Ultima I or III	40	26
Ultima IV or V	60	39
Under Fire	35	23
Universal Military Sim.	50	33
Visions of Aftermath	40	26
Wargame Construction Set	40	26
Warship	60	39
Wasteland	50	33
Willow	40	26
Wizard's Crown	40	26
Wizard Wars	45	29
Zak McKracken	45	29

AMIGA SOFTWARE

	LIST PRICE	WRIGHT PRICE
Barbarian	$40	$26
Bard's Tale	50	34
Clever and Smart	35	23
Defender of Crown	50	33
Earl Weaver Baseball	50	33
Final Assault	45	29
Impossible Mission II	50	33
King's Quest I, II or III	50	32
L.A. Crackdown	50	33
Lords of the Rising Sun	50	33
Marble Madness	50	33
Menace	30	20
Obliterator	40	26
Paladin	40	26
Police Quest	50	32
Questron II	50	33
Rocket Ranger	50	33
Sherlock	40	26
Solitaire Royale	30	20
Space Quest I or II	50	33
Starglider II	50	33
Terrorpods	40	26
Thexder	35	23
Three Stooges	50	33
Twilight Zone	40	26
Ultima III	40	26
Ultima IV	60	39
Universal Military Simulator	50	33
War in Middle Earth	60	39
Wizard Wars	40	26

APPLE II SOFTWARE

	LIST PRICE	WRIGHT PRICE
2400 AD	$40	$26
American Civil War 2 or 3	40	26
Bard's Tale	45	30
Bard's Tale II or III	50	32
Battles of Napoleon	50	33
Demon's Winter	30	20
Empire	50	33
King's Quest I, II, III or IV	50	32
Manhunter New York	50	32
Space Quest I or II	50	32
Times of Lore	40	26
Ultima IV or V	60	39
Under Fire	60	39

C-64 SOFTWARE

	LIST PRICE	WRIGHT PRICE
4th & Inches	$30	$20
American Civil War Vol 2 or 3	40	26
Bard's Tale I, II or III	40	26
Battles of Napoleon	50	33
Demon's Winter	30	20
Impossible Mission II	40	26
Jordan vs Bird: One on One	30	20
Questron II	40	26
Red Storm Rising	40	26
Road Runner	35	23
Three Stooges	35	23
Times of Lore	40	26
Ultima IV or V	60	39
Zak McKracken	35	23

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Circle Reader Service #46

The game ratings in CGW have become an institution in the computer entertainment hobby and industry. Many of you have told us that you use the game ratings to assist you in making your game purchase decisions. The manufacturers follow this list closely, as well. It is not unusual for a company to call in and ask if we have added our numbers correctly when one of their products gets a lower rating than they expected. Wild Bill Stealey, CEO of Microprose, says he values a #1 ranking in CGW's Reader Input Device Ratings above all other awards. Another publisher bought the rights to a number of older titles in order to repackage them and sell them in his economy line. He used R.I.D. in deciding which products to market. We are proud that so many of you have gotten value out of this service.

However, we think R.I.D. can be even better. One thing that can help is to insure a uniform rating scale that is easily understandable by all. We all can articulate the difference between a "1" game and a "9" game on the R.I.D. scale, but can we articulate the difference between a "6" game and a "7" game?

After studying the matter, we have decided to swap our 1-9 numeric rating scale for a letter grade scale (i.e. A to F). We now ask you to rate games as if you were an educator. Assign the games a letter grade of A through F. As with the world of education, the scale will translate to:

A=Excellent

B=Above Average

C=Average

D=Below Average

F=Failure

If you wish, you may assign pluses (+) or minuses (-) to your letter grades (i.e. B+, B-, C+, C-, etc.) As always, rate only those games that you have played.

This is the third of three issues in which we are rerating all of the games on our current R.I.D. list and a number of other titles, as well. Remember that thousands of gamers will be making buying decisions based on the results of these ratings, so help your fellow gamer out and let him know what is a worthy purchase and what is not.

Additionally, CGW will be working with a statistical psychologist to begin studying what are the common elements of the games you like and why different gamers like different kinds of games. To that end, we will continue to ask you a set of demographic questions at the beginning of each R.I.D. Please be sure to answer these questions each month, even if you have answered them before. We are looking forward to sharing some interesting insights from this data in the months ahead.

Demographics

(List the appropriate number)

1. What is your age?

1 = Under 14 years old
2 = 14-17 years old
3 = 18-20 years old
4 = 21-30 years old
5 = 31-35 years old
6 = 36-40 years old
7 = 41-50 years old
8 = 51+ years old

2. What machine(s) do you play games on?

(List all numbers that apply. List the machine you use most often first, the others in descending order of one.)

1 = IBM, clones, Tandy
2 = Amiga
3 = Apple 8 bit
4 = Apple IIGS
5 = Atari ST
6 = Atari 8-bit
7 = C-64/128
8 = Macintosh
9 = Other (please specify)

3. How much time do you typically spend playing computer games each week?

1 = Less than 2 hours
2 = 2-5 hours
3 = 6-10 hours
4 = 11-20 hours
5 = 21-30 hours
6 = 31+ hours

Games

4. 688 (EA)
5. Stealth Fighter (Microprose)
6. Questron (SSI)
7. Star Saga I (Masterplay)
8. Europe Ablaze (SSG)
9. Ancient Art of War (Broderbund)
10. Captain Blood (Mindscape)
11. Three-in-One Football (Haffner)
12. Phantasie II (SSI)
13. Police Quest II (Sierra)
14. Falcon (Spectrum Holobyte)
15. Seven Cities of Gold (EA)
16. Might and Magic II (New World)
17. Strike Fleet (EA)
18. Lode Runner (Broderbund)
19. TV Sports: Football (Cinemaware)
20. Faery Tale Adventure (Microillusions)
21. Pinball Construction Set (EA)
22. Genghis Khan (Koei)
23. Carrier Force (SSI)
24. Legacy of Llygamyn (SirTech)
25. Caveman Ugh-lympics (EA)
26. Three Stooges (Cinemaware)
27. War in South Pacific (SSI)
28. Shadowgate (Mindscape)
29. L. A. Crackdown (Epyx)
30. Wizardry V (Sir-Tech)
31. F-19 Stealth Fighter (Microprose)
32. Corruption (Rainbird)
33. Final Assault (Epyx)
34. Star Trek: First Contact (Simon & Schuster)
35. Arkanoid (Taito)
36. Grailquest (Artworx)
37. The Colony (Mindscape)
38. Jack Nicklaus Greatest 18 Holes (Accolade)
39. Tracon (Wesson)
40. Under The Ice (Lyric)
41. Double Dragon (Arcadia)
42. Legend of Blacksilver (Epyx)
43. Deathlord (EA)
44. Courtside College Basketball (Haffner)
45. MacArthur's War (SSG)
46. Scavengers (Interstel)
47. Battle of the Atlantic (SimCan)
48. Questron II (SSI)
49. Renegade (Taito)
50. Zork Zero (Infocom)
51. Modem Wars (EA)
52. Battles in Normandy (SSG)
53. Sword of Sodan (Discovery)
54. Lords of Conquest (EA)
55. Leisure Suit Larry II (Sierra)
56. Space M+A+X (Final Frontier)
57. Guardians of the Infinity (Paragon)
58. In Harm's Way (SimCan)
59. Twilight's Ransom (Paragon)
60. Grand Prix Circuit (Accolade)



Be it known to all gentle persons that the above named games have been well spoken of by our readers over a goodly period of time. Therefore they have been enshrined in the CGW Hall of Fame as games of renown and worthy of play by all

Circle Reader Service #47 »

The game ratings have been frozen for three months while the new Reader Input Device database is under construction. The ratings printed here are those compiled with the last figures received prior to adopting an A through F grade scale. Be sure to tune in two issues from now when we unveil the results. In the meantime, the response has been fabulous. If you haven't mailed in your responses for the new database, turn to the R.I.D. and let us know how you feel.

Strategy Top 50

Name	Mfg	Machine	Tms Rtd	Avg Rsp	Rating
Battlechess	Interplay	Am	1	21	8.10
Typhoon of Steel	SSI	Ap,C	1	22	8.00
Empire	Interstel	Many	11	45	7.84
Reach for Stars (3rd)	SSG	Many	1	38	7.45
Earl Weaver Bsball	EA	Am,I	12	44	7.31
Strike Fleet	EA	Ap,C	7	40	7.11
Panzer Strike	SSI	Ap,C	6	27	7.07
Silent Service	MicPr	Many	8	99	7.06
Carrier Force	SSI	C,Ap,At	5	108	7.04
Crusade in Europe	MicPr	Many	10	58	7.03
Decision in Desert	MicPr	Many	10	35	7.03
Flight Sim II	SubLg	Many	6	84	7.03
Battle of Antietam	SSI	Many	12	41	7.01
Europe Ablaze	SSG	C,Ap	9	32	7.01
NFL Challenge	XOR	I,M	7	23	7.01
Seven Cities of Gold	EA	Many	10	118	7.00
Ancient Art of War	Brodr	I,M	10	39	6.99
Under Fire	AH	Ap,C,I	8	23	6.97
Battlegroup	SSI	C,Ap	4	35	6.95
Defender Crown	Cnmwre	Many	8	51	6.95
Lords of Conquest	EA	Many	3	42	6.93
Russia	SSG	Ap,C	12	31	6.93
War in So. Pac.	SSI	Ap,C	7	22	6.93
Field of Fire	SSI	Ap,C,At	5	67	6.92
Rebel Charge	SSI	Many	10	27	6.92
U.S.A.A.F.	SSI	C,Ap,At	2	26	6.92
Micro Lg Baseball	MicLg	Many	5	72	6.88
Star Fleet I	Intstel	Many	7	50	6.84
Battlefront	SSG	Ap,C	9	33	6.83
Paladin	Omtrnd	Am,ST	2	29	6.83
Shiloh: Grant's	SSI	Ap,C,I	5	26	6.83
Breach	Omtrnd	Many	9	48	6.82
Roadwar 2000	SSI	Many	3	34	6.80
Computer Ambush	SSI	Many	6	49	6.78
Halls Montezuma	SSG	C,Ap	5	24	6.78
Computer Baseball	SSI	All	8	37	6.77
Gato	SpHb	Many	3	79	6.77
Gulf Strike	AH	Many	4	34	6.75
Anc. Art War Sea	Brdrbnd	Ap,I,M	4	30	6.75
Geopolitique 1990	Th.Mt.	Ap,C	3	29	6.73
3-in-1 Football	Hafner	Many	3	20	6.72
No. Atlantic '86	SSI	Ap,M	2	72	6.65
Conflict in Viet	MicPr	Many	5	21	6.63
Balance of Power	Mndscp	Many	7	46	6.61
Battlecruiser	SSI	Ap,At,C	3	29	6.61
Knights of Desert	SSI	Many	5	63	6.61
U.M.S.	Rnbrd	ST,I	3	31	6.61
Chickamauga	GDW	At,C	2	26	6.60
Dec. Battles ACW	SSG	Ap,C	3	20	6.60
Warship	SSI	Many	6	40	6.54

Adventure/Action Top 50

Name	Mfg	Machine	Tms Rtd	Avg Rsp	Rating
Dungeon Master	FTL	ST	8	39	7.85
Wasteland	EA	Ap,C	7	48	7.83
Future Magic	EA	I	1	21	7.76
Battlehawks 1942	Lucsflm	I	1	22	7.75
Pool of Radiance	SSI	C,I	1	31	7.61
Pirates	MicPr	Many	13	55	7.57
Ultima V	Origin	Ap,I	6	45	7.56
Rocket Ranger	Cnmwre	Am	1	30	7.47
King's Quest IV	Sierra	I, IIGS	1	21	7.41
Stealth Fighter	MicPr	C	11	22	7.38
Bard's Tale III	EA	Ap,C	6	43	7.34
Falcon	SpHolo	I,M	8	25	7.23
Faery Tale Adv.	Micrill	Many	9	32	7.16
Bard's Tale II	EA	Many	12	55	7.13
Phantasie	SSI	Many	10	68	7.13
Spellbreaker	Infcm	Many	5	24	7.09
Zork Series	Infcm	Many	7	122	7.09
Archon I	EA	Many	12	96	7.08
Legacy of Llygamyn	SirTc	Ap,I	9	52	7.08
Pinball Const. Set	EA	Many	4	47	7.08
Lode Runner	Brdrbnd	Many	6	60	7.07
Phantasie II	SSI	Many	6	36	7.07
Questron	SSI	C,Ap,At	6	90	7.07
Sorcerer	Infcm	Many	5	58	7.07
Wizard's Crown	SSI	Many	11	58	7.06
Legacy Ancients	EA	Ap,C	4	46	7.05
Wings of Fury	Brdbnd	A	2	20	7.05
Shadowgate	Mindsc	Many	2	30	7.03
Enchanter	Infcm	Many	4	45	7.02
Eternal Dagger	SSI	Ap,At,C	3	28	7.00
One on One	EA	Many	8	75	7.00
Star Saga I	Mstrply	Many	1	20	7.00
Ultima II	Orign	Ap	8	61	7.00
Leather Goddesses	Inf	Many	2	31	6.98
Airborne Ranger	MicPr	C,I	6	24	6.97
Ultima I	Orign	Ap,C	2	48	6.96
Auto Duel	Orign	Many	2	65	6.95
Deadline	Infcm	Many	3	44	6.94
Police Quest	Sierra	Many	6	28	6.94
Three Stooges	Cnmwre	Am,C	6	31	6.93
Manhunter	Sierra	I,IIGS	1	22	6.91
King's Quest II	Sierra	Many	3	20	6.88
World Class Ldr Bd	Access	Am,C	4	20	6.88
Return to Atlantis	EA	Am	2	23	6.87
Hitchhiker's Guide	Infcm	Many	4	108	6.86
Planetfall	Infcm	Many	3	51	6.86
Beyond Zork	Infcm	Many	2	30	6.80
Summer Games	Epyx	Many	2	35	6.79
Wishbringer	Infcm	Many	3	36	6.79
Choplifter	Brdrbnd	Ap,C	6	70	6.78

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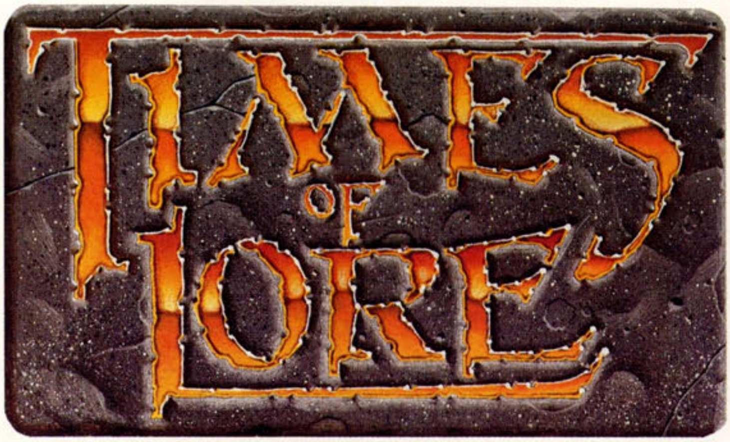
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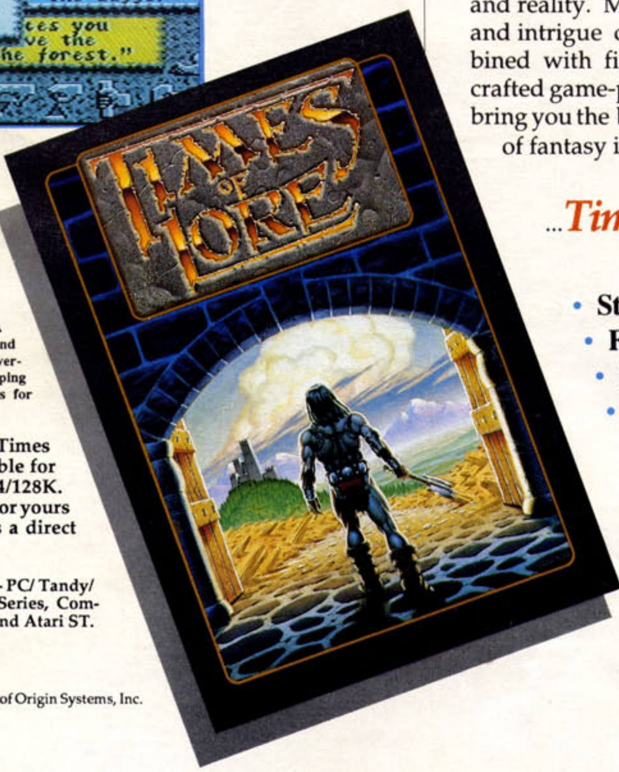
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